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UNIVERSITY OF ALBERTA

THE ADMINISTRATION OF MEDICATION AND RELATED HEALTH CARE PROCEDURES IN ALBERTA SCHOOLS

BY

© LEENDERT BAKKER

A THESIS

SUBMITTED TO THE
FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT
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FOR THE
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IN
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DEPARTMENT OF EDUCATIONAL PSYCHOLOGY
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FALL, 1991

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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read and recommend to the Faculty of Graduate Studies and Research for acceptance a thesis entitled "The Administration of Medication and Related Health Care Procedures in Alberta Schools," submitted by Leendert Bakker in partial fulfillment of the requirements for the degree of Master of Education.

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Date: June 12 1991

ABSTRACT

The purpose of this study was to investigate teachers' current practices and attitudes regarding health care procedures in school settings. It was intended to measure their willingness to administer medications to students in schools and to determine if they felt adequately prepared and protected by their school boards when asked to carry out drug therapy and complicated medical procedures such as colostomy care and catheterizations.

The Province of Alberta does not have legislation enabling school personnel to carry out medical procedures; on the contrary, the most recent Nursing Profession Act explicitly prohibits all non-medical personnel from carrying out any task which must be performed by a nurse or medical doctor. Therefore, teachers administering medications and carrying out other medical procedures are violating the law.

This study was based on a survey of teachers in Alberta who are engaged in health care procedures. A questionnaire was sent to educational agencies from day cares to high schools. The questionnaire provided data regarding the current medical practices in regular and special education classes, the feelings of teachers providing these services, the legal aspects of health care services in schools, and the settings in which teachers work.

The results of this study reveal that many teachers are very concerned about the role of the nurse in Alberta schools, and many teachers are willing to participate in the

medical aspect of their students' education. Teachers are not well-informed about the legality of their actions when performing medical tasks, and a number of school districts do not have procedural guidelines related to health care procedures.

It is recommended that the Department of Education, the local school boards, and the Alberta Teachers Association develop a uniform set of guidelines to protect teachers. The Nursing Profession Act of 1983 should be amended to enable school personnel to provide certain health care procedures in educational institutions.

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Chapter I

INTRODUCTION

The recently proclaimed School Act in Alberta (1989, Bill 27) requires that public school districts provide educational services for all children of common school age regardless of the severity of a child's handicap. Before the law was enacted, school districts could more easily refuse entry to any child they were not prepared to serve because of the student's health care needs. The concurrent expansion of programs has created concerns about adequate supervision of the children and the protection of staff from hazards to their health. Also, the administration of medication to students during the school day has been a source of controversy among some teachers for a number of years. One of the most pressing issues is the potential liability for errors (e.g., inappropriate drug dosage or schedule). School personnel also have expressed concerns about adverse drug reactions due to medication administered at school and the increasing number of complicated medical procedures which they are required to carry out (e.g., tube feeding and suction procedures).

In the case of some disorders (e.g., hyperactivity), school personnel who are philosophically opposed to pharmacotherapy may object to the administration of psychoactive medications at school. It appears that many drugs administered in schools are for hyperactivity or seizure control. A study in Illinois indicates that 9% of

all trainable mentally handicapped students received medication in school for either behavioral control or a seizure disorder (Gadow & Kane, 1983). In Baltimore, Maryland, 1.65% of all children were receiving medication in school to control hyperactivity (Gadow & Kane, 1983).

The same Baltimore study indicated that not only teachers administer medication in schools, but also nurses, aides, the students themselves, secretaries, and various others. This study also indicates that for 27% of the drug administrations there was no written instruction from the doctor; in 14% of the cases, there was no written permission from the parent; and in 52% of the cases, there was no record kept of the drug administration. Although most other school personnel might gladly turn the task of administering drugs over to school nurses, many districts simply do not have access to full-time school nurses.

The most common medication-related procedures found in Canadian school policy statements and state guidelines in the U.S. include

1. Parental request or authorization to give medication;
2. Physicians' approvals or requests for administration of medication; and
3. Secure storage of medication.

Although there are alternatives to the administration of drugs in schools by teachers, these alternatives often are

considered impractical and are not frequently used. Some alternatives include the following:

1. Requiring a parent to come to school and administer the medication. This method may be impractical for the parent, and it may also be illegal since the exemptions in nursing practice acts that are typically viewed as permitting parents to administer medications are generally specific to home health care (e.g., Department of Health, Nebraska, 71 - 1, 132.06, 1988).
2. Changing the medication schedule to make medication administration unnecessary during school hours. Although it could be done with many students, this may not be a viable alternative for many others.
3. Teaching children to administer their own medication in the school. Storage of medication in the school when self-medicating still remains a problem. However, compliance in taking the medication and other safety and health considerations may be even a greater concern.

Major components included in documents regarding the administration of drugs in schools are found in state and provincial laws, adopted regulations, opinions of attorneys-general, or recommended guidelines. These may include such components as

1. Liability release forms,

2. Rules regarding storage of medication,
3. Rules for labelling of containers,
4. Procedures for delivery of medications to schools,
5. Responsibilities of nurses in organizing plans for administering medications,
6. Required record keeping procedures,
7. Personnel training guidelines,
8. Protocols for consultation with physicians,
9. Requirements for administration of medication in front of another adult,
10. Regulation of the amount of drugs stored at school,
11. Rules for students self-administrating medication, and
12. Policy regarding persons having access to drug/pupil information.

In this current study, a survey dealing with the administration of medication and related health care procedures in schools and daycares was prepared and sent out to all schools in Alberta. The purpose of this study was to identify current classroom practice regarding the provision of health-related services to students, with particular emphasis on services to students with special health care requirements. What health-related procedures are being performed, and who performs them? Who do teachers feel are responsible for carrying out medical procedures, and which medical procedures should school personnel be responsible for in schools?

Due to the lack of Canadian literature, most of the information related to the administration of medication and health care procedures in schools is derived from studies completed in the United States. One of the purposes of this study was to provide information which is Canadian, particularly Alberta focussed and to determine how teachers feel about this aspect of their job.

A questionnaire method was chosen to assess how teachers deal with drug therapy and health care procedures in their classrooms. The study provided a combination of qualitative and quantitative information. Qualitative information was gained from open-ended questions and comment sections on various questions. Quantitative information was produced through the development of figures showing numbers or percentages of the results of the questions.

It was assumed that teachers are performing a variety of health-related tasks in the classroom, but it was not clear how they feel about performing these procedures or if they were aware of the legal implications of their actions. Therefore, questions concerning these issues were included in the questionnaire. If teachers are confused about inconsistent policies or the lack of policies, why are they not more vocal about this issue? Controversy about health care procedures is clear in articles published in the United States (e.g., Courtnage, 1982) and from newspaper editorials which have lately appeared in Canadian national and local

papers (e.g., Elliott, 1988). This controversy is discussed in greater detail in the following literature review.

Chapter II

LITERATURE REVIEW

Until approximately 10 to 15 years ago, Doctors often recommended to parents that a child who was diagnosed as being severely handicapped should be cared for in an institution. In many cases, this recommendation was followed, and as a result, the issue of medical care in school for this student did not occur.

Today, this situation has changed, and school personnel are often approached to look after the medical needs of students. Also, many regular students may be involved in drug therapy for various reasons and may be required to take medication during school hours. As it is now apparent that many students require medical treatment for existing conditions at school, the question has been raised about teachers' responsibilities toward administrating medical treatments to students.

These matters are discussed in the following literature review. Although the emphasis of the literature dealing with medical procedures may seem to be on special needs students, this issue is relevant to all children with health care needs.

Integration of Handicapped Students into Regular Classrooms

In April of 1985, section 15 of the Constitution Act of 1982 came into force to provide all students with equal opportunities to education. This law states that "every individual is equal before and under the law without discrimination based on mental and physical disability" (Poirier, Goguen, & Leslie, 1988, p. 25). While a final and exact interpretation of this right remains uncertain, it has often been interpreted as requiring school boards to integrate handicapped children into regular classrooms, and increased integration of handicapped students has placed new demands on professional classroom teachers. As more mainstreaming takes place, both administrators and teachers may have to face the legal and procedural implications created by the increasingly complex care that is expected from those who come in contact with students with complex health care needs.

Brian McCabe, president of the Nova Scotia Teachers Union, said the five Atlantic Organizations are united in their fear concerning the integration of students with intensive medical needs into public schools. They are particularly worried when classroom teachers are called upon to meet not only the educational needs of these students, but also to deal with their medical needs (The A.T.A. News, 1985).

In Ontario, as a result of action taken by school board personnel, parents, and representatives of local agencies,

it was decided at the provincial level that the Ministry of Health would be responsible for providing health support services to students who require such services during the day and school boards would be responsible for the administration of oral medication to students when prescribed as essential to the child's participation in school programs (Education Ontario, 1984). Poirier, Goguen, and Leslie (1988) state that in Ontario the Education Act mentions that "every board must provide special education for its exceptional children ss. 20 (3), 149 (7), even for pupils who are hard to serve" (p.38). Nevertheless, the act does not make clear who will administer the medication or carry out complex health care procedures.

Many school employees are not prepared to provide routine and emergency health care, yet government and citizens' groups have increased their demands for school health services. In some cases, school personnel do not even wish to provide emergency treatment to allergy victims because teachers are concerned about their liability (Ross, 1987). The solution seems clear: Hire a school nurse to provide these services. However, because of budget constraints, the number of school nurses does not seem to be increasing (White, 1981). Few school boards employ nurses to carry out medical procedures in schools, and many teachers are not typically eager to perform medical tasks regardless their knowledge of the legal aspects of their actions.

Of course, the discussion of the effects of integration on schools' provision of health care services is based on two major assumptions. First, it assumes that the current practice of segregated special education adequately and appropriately address issues related to the provision of complex health care services in school settings. Second, it assumes that these issues would not be concerns in segregated regular education classrooms. Unfortunately, little information is available to evaluate either of these assumptions. Nevertheless, regardless of the real relationship between integration and the provision of health care services in the schools, the perceived relationship and expression of concern (The A.T.A. News, 1985) suggest a need for closer examination.

The 1983 Alberta Nursing Profession Act (Chap. N-14.5 Part 1:2H) explicitly states that any person who is not a registered nurse or a permit holder and who engages in nursing practices is guilty of an offense and that no person shall knowingly employ a person who is not a nurse to provide nursing duties. Such nursing practices include administering medications and many other health related procedures currently carried out in schools.

Type of Health Care Services Demanded of Schools

In a recent study Ault, Guess, Struth, and Thompson (1988) note that seizure monitoring, teeth and gum care, medication administration and emergency seizure procedures

occur in 75-100% of all classes for students with severe handicaps. Other services required may be establishing bowel habits, diet monitoring, postural drainage, shunt care, gastronomy feeding, cast care, colostomy procedures, catheterization, oxygen supplementation, tracheostomy care, and administering enemas.

The deinstitutionalization policies in Canada have resulted in the enrollment of a higher number of severely handicapped students in the schools (Education Ontario, 1984), and as students with severe handicaps frequently have many health problems, carrying out health-related procedures is often critical for maintaining students' participation in the classroom. Consequently, teachers in community schools are often required to do duties that in the past were reserved for institutional personnel.

Teachers often are willing to be responsible for medical procedures to ensure a student's place in the school system. Many feel that they should be allowed to perform any procedure that the law or a physician allows a parent to perform. Many of these teachers view themselves as an advocate or parent of the student (Ault, Guess, Struth, & Thompson, 1988).

The American Academy of Pediatrics recognizes that non-health professionals sometimes must dispense medication or perform medical procedures at school. They have developed recommendations for school system policies; however, school boards should remember what the state law dictates and that

they may risk law suits as a result of liability incurred by permitting teachers to dispense medication (White, 1981), regardless of approval by professional associations.

Legal Implications

School systems can be caught in conflict with provincial or state laws and teachers' unions when they attempt to persuade teachers to dispense medications. The British Columbia Teachers Federation advises teachers in their policy manual (British Columbia Teachers Federation Policy Manual, 1987) not to administer medication on a regular basis unless they receive a specific monetary reimbursement and follow a prescribed procedure which is prescribed by the British Columbia Ministry of Health (British Columbia Health Act of 1982). It also recommends that amendments be made to the Medical Practitioners Act.

Eberlein (1987) warns that

> What is disturbing, however, are the number of teachers who are told to administer medication to their students, especially those in special education classes, at the risk of losing their job should they refuse. Only a few of the teachers have the necessary medical training to give this medication (Chapter X, p. 2).

The Alberta Teachers Association states in its members' policy manual (1988) that providing medical care is non-educational (Section 5 A 32), and teachers should be allowed

to refuse such assignments (Section 5 B 15). A current directive states that medical procedures must be provided by competent health care personnel (Section 8 B 29).

Boards and teachers in Canada have no general immunity in common law from tort action (Lamb, 1980). In a situation where it can be shown that a high degree of technical or professional skill is required to carry out the duty, a board not employing suitable persons to perform that duty might be considered negligent. School boards are responsible for the tortious acts of their employees if the latter act within the scope of their authority (Lamb, 1980).

When a severely handicapped student is mainstreamed or integrated into a regular classroom setting, the teacher may be expected to assume what is legally called a "higher duty of care" (Lamb, 1980). This duty may be close to or equivalent to parental duties. Receiving teachers should know what is expected of them as teachers and how to meet those expectations. Therefore, principals must ensure that teachers are provided with adequate training prior to receiving the student, and the school board must provide adequate facilities. No handicapped student should be mainstreamed into a classroom setting that is potentially dangerous to his or her well-being (Parry, 1985). Statutes such as the "Good Samaritan Act" and concepts of "in loco parentis" and the "prudent parent" do not protect teachers who carry out health care procedures on a regular basis since they refer to emergencies and other limited situations

only (Gee & Sperry, 1978; Hamson-Hoyano, 1984; Rozovsky, 1984; Sparks & Rabinow, 1984).

Should teachers be asked to assume medical treatment in excess of that ordinarily required of parents of medically normal children, and what should teachers do if medically dependent children are placed in their care? The Alberta Teachers Association advises that the teacher protest the assignment. When a teacher accepts the responsibility for a "higher standard of care" than would be the case for an ordinary student, an obligation is assumed that might expose the teacher to liability (Keeler & Harrison, 1982). Certainly teachers should only engage in health care procedures they feel competent to handle; nevertheless, to refuse to undertake the administration of any medicine or medical treatment might lead to the denial of some children's right to education because no alternative sources of treatment are currently provided.

Teachers have been advised by their local associations to make sure that the school board has insurance coverage for the dispensing of drugs. Teachers' unions support such actions (Mackay, 1984). Nevertheless, teachers likely retain individual liability and criminal responsibility for their actions.

In the United States, a school system might not be able to avoid all involvement in the administration of medication or other health care services. The Education for All Handicapped Children Act of 1975 (P.L. 94-142) requires that

a school district provide related services that can be carried out by qualified persons. While compliance with P.L. 94-142 is not compulsory for all states, states which choose to accept aid under this act must abide by the provisions; and currently, all fifty states take part.

Urinary catheterization was ruled in court to be a supplementary service which can be administered by someone other than a physician (Gadow & Kane, 1983). Catheterization is now the school's responsibility in certain states, but it still should be performed by someone who is skilled in nursing care, such as a school nurse, and not a teacher. Exceptions to the above are Washington and Kansas where selected nursing procedures may be performed by trained school board employees (Kansas Nurse Practice Act, 1988; Registered Nurses Act, State of Washington, 1988).

Psychosocial Considerations

Although guidelines pertaining to medication might be expected to reflect a healthy regard for the psychosocial aspects of drug therapy, many of these policies are not aimed at helping children. Mainstreaming is aimed at making the individual's life more normal, and school procedures pertaining to health care procedures should not stigmatize or hinder a child's adjustment. Instead, drug therapy should be used for the medical and psychological benefit of the child (Gadow, 1982). As some medications are incompatible with the acquisition of adaptive behavior,

there should be communication between parents, teachers, and the physician regarding the effect of the medication during school hours (Browning, 1983; Orelove & Sobsey, 1987; Prehm, 1987).

Guidelines on Health Care Related Procedures

In 1977, the Council for Exceptional Children developed a policy regarding the administration of prescribed medication to children in schools. Many school boards adopted this policy, which includes four components:

1. A policy statement,
2. An administration of medication form,
3. Procedures for storage of medication, and
4. A set of professional rights and responsibilities.

However, the school board policies discussed vary greatly from the guidelines set by the Council of Exceptional Children. For example, none of the policies examined insurance coverage by the school boards (Alberta School Trustees Association Manual, 1981).

Ross and Foreman (1983) state that "the necessity for having written regulations governing the way medicine is to be administered and controlled on school premises is evident, since those who improperly administer medication may be subject to civil liability suit" (p. 593). Medication guidelines were developed in 1983 by a committee of government and private agency representatives for residential agencies in Alberta. A concern had been

expressed regarding the legality of lay persons administering medications in nursing the group homes and similar agencies, particularly in the light of the stringent regulations governing nurses in this province (Nursing Profession Act, 1983). The guidelines acknowledge that agencies have the responsibility to their clients to ensure safe and effective administration of medication (Residential Agencies, 1983). However, these guidelines are not legal regulations and therefore do not have legal status, in fact, they appear to be entirely illegal.

A similar set of guidelines could be provided for school boards and teachers by the Alberta Department of Education, but if the Nursing Profession Act is not changed to allow others to perform health care procedures, the guidelines would not have legal status.

This is particularly necessary now that the new Alberta school act is in effect and medically fragile students may be mainstreamed into regular classrooms.

Severely Handicapped Students

Severely handicapped students are a heterogeneous group who differ widely in terms of physical impairments and behavior problems (Ludlow & Sobsey, 1984). These students need educational, social, psychological, and medical services. It is estimated that 1/10 to 1% of the population can be categorized as severely handicapped (Ludlow & Sobsey, 1984). Drug therapy is often used with these severely

disabled individuals, and the medication is of a serious nature. In a study conducted in Florida, Fox and Westling (1986) found that 53% of the severely handicapped students studied received medication. Seventy-four percent of the medications prescribed were anti-convulsants, and 16% were tranquilizers.

Transdisciplinary Communication

Many students receive more than one medication, and professionals working with this population need to have an understanding of drug therapy. Behavioral changes, side-effects, and adverse drug reactions should be monitored by teachers and reported to the physician. Physicians who prescribe medication need relevant information regarding observed effects from parents and school personnel in order to best serve children on medication (Epstein & Ollinger, 1987; Gadow & Poling, 1988). Also, many medications have educationally relevant effects that teachers should consider in their work with a student. Therefore, teachers need basic information about drug therapy.

Drugs frequently used in pharmacological management of children and youth are major and minor tranquilizers, anti-depressants, stimulants, anti-convulsants, and drugs for specific problems (Simeonsson & Simeonsson, 1981). Drug therapy should be a cooperative venture of physicians, parents, and staff involved with the handicapped students. Teachers can provide data on the short-term and long-term

effects of drug therapy. Therefore, a transdisciplinary approach is advocated.

Training of School Personnel

If teachers are expected to administer medications, then solutions to the problem of inadequate training must come from teacher preparation programs, professional organizations, and/or appropriate state and local agencies (Gadow, 1982). The Council of Exceptional Children offers a 2-day seminar on drug therapy with children. In addition to this type of training, local inservice training programs could be used to familiarize school personnel with physicians who prescribe medications and to encourage transdisciplinary communication.

Brulle, Barton, and Fcskett (1983) conducted a study to investigate educator-physician interchanges. Although all physicians interviewed felt that a regular objective exchange of information was important, very little information was actually being exchanged. The physicians also felt that most of the information they received was not objective; therefore, the authors developed a data collection and communication form to reduce the discrepancy between needed and available information.

Recently, a number of helpful guidelines addressing the health care needs of students with disabilities have been published by authors like Graff, Ault, Guess, and Taylor (1990) and Holvoet and Helmstetter (1989). Special articles have also been written in journals dealing with the education of exceptional children (e.g., Lindsey, Leibold, Ladd, & Ownby, 1980).

A teacher needs assessment for the educational management of children with chronic illnesses, conducted in North Carolina public schools, showed that teacher certification programs should include more course work related to chronic health conditions. The role of the school nurse also needs careful evaluation (Johnson, Boyd-Ludker, Glenn-Fowler, 1988).

The Role of School Nurses

In many articles dealing with the expanding role of the school nurse, it appears to be generally accepted that a nurse should be a part of the educational team in schools attended by handicapped children (Bryan, Warden, Berg, & Hauck, 1978; Jenkins, 1983; Rose, 1980; Steenson & Sullivan, 1980). In reality, one finds that only in educational settings where a large population of handicapped students is being served are school nurses/aides being employed. The Edmonton Separate School board employs a registered nurse at one of its schools. In integrated settings where we may find a normal distribution of handicapped students, it is probably unrealistic to expect that the aide or classroom teacher will be trained as a registered nurse as well. Individuals qualified as both teachers and nurses are rare, and salaries for teachers' aides are well below established levels for nurses. The current demand for nurses exceeds the available supply.

The Role of the Teacher

In the absence of a school nurse, what should the role of the teacher be regarding school health practices for children with complex medical need? The teacher can play an

important role in the medical evaluation by supplying the physician with a description of the child's behaviour (Gadow, 1986). Teachers will have to press for written guidelines for nursing procedures at the state and provincial level, and training should be provided (Wood, Walker, & Gardner, 1986). In the United States, the number of states with no written guidelines have been reduced from 34 in 1982 to 16 in 1986 (Courtnage, 1982; Wood, Walker, & Gardner, 1986).

The American Federation of Teachers, The Council of Exceptional Children, the National Association of School Nurses, and the National Education Association formed a task force which developed guidelines to assist health and education professionals in the management of children with special health needs in educational settings. A matrix of professional responsibilities for the delivery of special health care procedures in schools was established. According to this matrix teachers are very restricted to perform health care related procedures.

In Alberta, no written guidelines concerning the adminstration of medication have been developed on the provincial level. The Alberta School Trustees Association has addressed the matter in its publication Medical Treatment of Students (1981). The Alberta Teachers Association has promised to include this matter in its newest policy manual; nevertheless, a change in the Nursing Profession Act must precede all policy formation.

An editorial in the Edmonton Journal (Elliott, 1988) quoted from a report prepared by Edmonton Public Schools:

> Medical and legal opinion state that the interventions required by the medically fragile go beyond the expertise and duties of district staff. For one thing, the present arrangement seems to be begging for a huge lawsuit (p. 2).

Many local school boards in Alberta have their own policies (Calgary Public School Board Policy Manual, 1984; Policy Guidelines Edmonton Separate School District, 1985). It is not known if all school boards have policies on medication administration and what uniformity can be expected in these policies. Furthermore, many of these policies appear to contravene the law since teachers are prohibited from carrying out nursing functions.

Teachers and school boards must initiate procedures to improve service delivery (Gadow, 1982). They must decide what role they are to play in establishing communications, guidelines, and strategies for effective and efficient interaction with medical and allied health professionals (Haslam, & Valletutti, 1985), their school board, and the provincial authorities.

Summary

It appears from the literature that many guidelines and policies have been developed by agencies, school districts, and even state departments; however, in most

cases, except for a few American states, changes in legislation dealing with nursing acts have not been enacted that would allow caregivers to perform certain health care procedures. Thus, nearly all guidelines and policies would not protect caregivers in court against legal actions should accidents occur when caregivers engage in medical procedures.

The literature reviewed makes it clear that teachers cannot ignore the medical aspect of their students' education. Practicality demands that certain health care needs be addressed in schools by school staff. However, legal protection for teachers engaging in medical procedures is still in its infant stage, and opposition to medical practices in schools has been voiced by teacher associations. The roles of school staff and nurses regarding medical procedures has been dealt with in many publications. Many authors describe the need for guidelines and changes in state and provincial laws to legally protect school staff. This study has attempted to extend the knowledge reviewed in this chapter to the state of affairs in the province of Alberta regarding the involvement of school staff in the administration of medication to their students.

Chapter III

METHODS AND PROCEDURES

This study samples the procedures presently followed with regards to the administration of medications and the delivery of complicated health care procedures in Alberta schools. Some items on the questionnaire also requested opinions of teachers regarding these practices.

A questionnaire (see Appendix A) was sent to licensed day care centres with programs affiliated with Alberta Education and all kindergarten, elementary, junior high, and high schools in Alberta, including institutions and hospital settings which provide school programs. Assistance with the distribution of this questionnaire was provided by the Alberta Education Response Centre. The information and recommendations which were received from school personnel and the guidelines and recommendations proposed by the investigator will be made available to Alberta Education.

The purposes of the questionnaire were

1. To investigate the current procedures in the administration of medication and complicated health care delivery,
2. To investigate the willingness of school personnel to be involved in these procedures, and
3. To compile information relevant to developing guidelines for the appropriate authorities concerned with medical care delivery from the

recommendations made by teachers through this instrument.

The Sample

In order to investigate how teachers deal with health care related procedures, a questionnaire was sent to each school in Alberta, and principals were asked to give copies to three teachers or more if necessary in each school. Teachers who responded included those who taught regular students and special education students or both.

The printing and mailing facilities of the Alberta Education Response Centre were used to print and deliver this questionnaire. Letters to the school principal and the teacher were included with the questionnaire which explained this study (See Appendix B). Teachers were requested to return the questionnaire within six weeks.

A questionnaire format was used in the study because of the size of the sample, so this format permitted quantification of categorical data. Three copies of the questionnaire were sent to 1810 schools, totalling 5430 copies.

The questionnaire was sent out on January 15,1989. The deadline for returns was set at February 28,1989. As the sample size was large, a minimum response rate of 25% was set as an arbitrary standard for this study to reflect the population sampled (Fowler, 1988).

The Instrument

The questions drafted by the investigator for this study were based on the type of issues dealt with in the reviewed literature. The questionnaire was tested on several teachers in the Edmonton Separate School system, and revisions were made until it was felt that the questionnaire was pertinent to the Alberta situation. A copy of the questionnaire is included in Appendix A.

Specifically, the questionnaire required teachers to define their work setting. This question was meant to allow analysis of whether medical care delivery procedures or teacher attitudes are different in large or small educational settings. Teachers were also requested to indicate if they worked in a large or medium-sized urban centre or in a rural community.

A variable probed was teachers' attitudes toward possible medical aspects of special education, and "Why?" and "How?" questions were hoped to indicate teachers' personal feelings toward this aspect of special education. Teacher knowledge of the legal ramifications and risks involved when performing health care related "duties" was also investigated.

A short section was devoted to the psychosocial aspects of drug treatment in schools. Answers to questions with regards to the type of drugs used with special needs students made it possible for the investigator to make recommendations for training teachers about drug regimens.

Teachers were asked to make comments on the need for clarification of this important but neglected aspect of education.

Data Analysis

As the data analysis was descriptive and quantitative, much of the data has been reported in percentages, and figures and graphs were developed from the data. Due to the extensive nature of the questionnaire, the investigator only discusses the results of questionnaire answers and does not make a comparative study of the questionnaire results; however, a demographic breakdown of the returns has been included.

A return address demographic analysis was conducted from legible postmarks. A percentage of sample by north/south location in Alberta in included in Appendix C.

Guidelines were drafted based on the questionnaire results and teacher opinions. Although these will not legally protect teachers until changes have been made to the law, these guidelines could be adopted at the local and provincial level.

Interrater transcription reliability from the same records was established for 78 variables. The method used for determining reliability was as follows: one hundred randomly selected records were entered into the computer by two observers.

$$\% \text{ Reliability} = \frac{\text{Agreements X 100}}{\text{Agreements + Disagreements}}$$

Interrater reliability was determined by category in questions with multiple answers because the total number of answers by category exceeded the response rate of teachers answering these questions.

Chapter IV

RESULTS

General

A total of 5430 surveys were sent to 1810 educational institutions, ranging from pre-schools to secondary schools. The number of usable returned questionnaires was 1434 or 26.4%. Blank returned questionnaires totalled 29.

The completed questionnaires provided useful information relevant to the questions asked and included additional comments and appended information such as school board policy statements, articles, and newspaper clippings. The results are reported according to the original survey questions.

Attitudes and Opinions of Teachers

Question 1 How many students in your classroom receive medication? Interrater reliability = 92.2%. The number of teachers answering this question was 1202. In total, 1443 students received medication. It appears that in 597 classrooms (49.6%) students did not receive medication. In the 605 (50.3%) remaining classrooms, the number of students receiving medication ranged from 1 to more than 20. The average number of students receiving medication per classroom was 1.2. The number of classrooms with various numbers of students receiving medication is reported in Table 1.

Table 1

Number of Classrooms Where Students Receive Medication

Number of Students Receiving Medication	Number of Classrooms	Percent of Classrooms
0	597	49.6%
1	337	28.0%
2	141	11.7%
3	59	4.9%
4	14	1.2%
5	25	2.1%
6	8	0.7%
7	5	0.4%
8	1	0.1%
9	1	0.1%
10	6	0.5%
11-14	3	0.2%
15-19	2	0.2%
>20	3	0.2%
	1202	(99.9%)

Question 2 Name some drugs which are used by students in your classroom? The intertranscription reliability was determined by category. This ranged from 94.2% to 100%.

The number of responses received was 1417. Seven hundred and six teachers responded that drugs were not administered in their classrooms. This number is consistent with the figures given in question 1. The types of drugs used were classified and are listed in Table 2.

Table 2

Types of Medications Administered in Classrooms

stimulants (23.3%)

anticonvulsants (10.3%)

anti-asthmatics (8.5%)

anti-diabetic drugs (4.5%)

others (3%)

anti-depressants (1%)

tranquilizers (1%)

Other types of drugs included allergy medications, antibiotics, cancer control medications, vitamins, anti-hypertensives, and 49 (3%) unclassified medications. Ritalin appears to be the most commonly used medication (327 classrooms or 23.1%). Anti-convulsants followed with a total of 148 classrooms or 10.3%. Anti-asthmatic medication was administered in 121 classrooms or 8.5%.

Question 3 Who currently administers medication in your school? Please check

Parent _____
Teacher _____
Nurse _____
Child (self-medicate) _____
Aide _____
Secretary _____
Other (Specify) _____

Range of reliability by category: 90.9% to 100%

The number of responses received totalled 1392. Four hundred and twenty-six teachers (30.7%) indicated that they administer medications. Students who are self-medicating totalled 660. It is not known if these students self-medicated under an adult's supervision. When compared to

all other categories, nurse-administered medication (113) was lowest (See Figure 1). Others were individuals such as siblings, principals or volunteers. Some teachers may have checked more than one category.

Question 4. Who do you feel should administer medications in your school? Please check

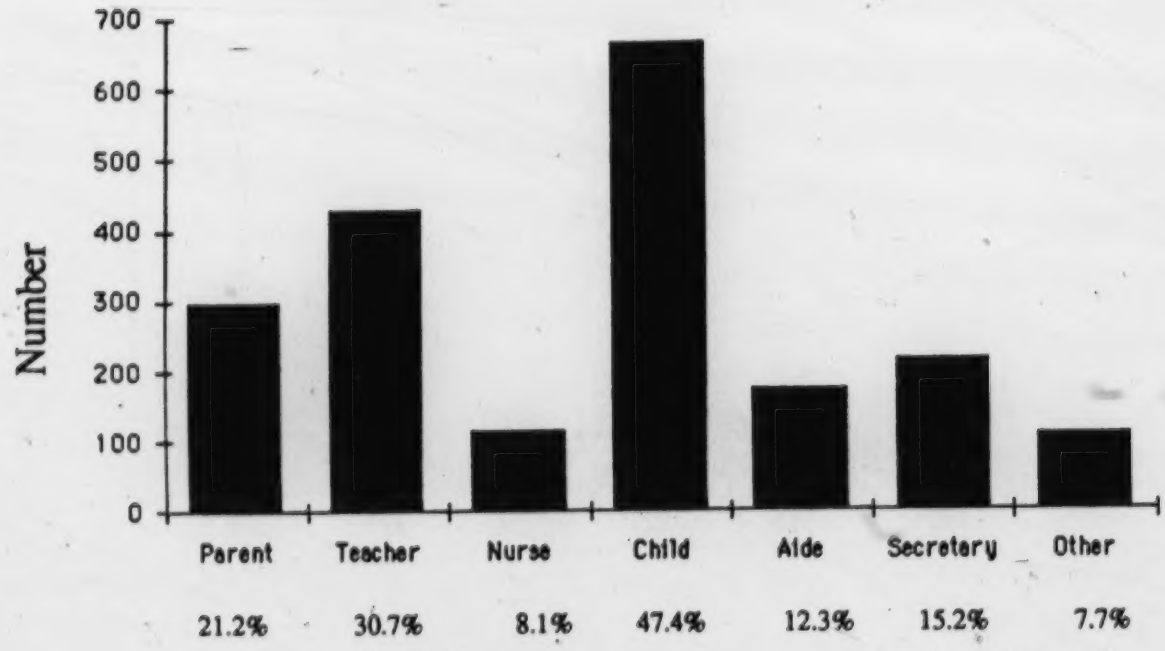
Parent	_____
Teacher	_____
Nurse	_____
Child (self medicate)	_____
Aide	_____
Secretary	_____
Other (Specify)	_____

Reliability by category ranged from 93.3% to 100%.

The number of responses received was 1406. Teachers indicated that the parents of the child (36.7%) or the school nurse (42.2%) are the preferred groups of caregivers to administer medications to their students. Self-medication (38.4%) also ranks among the preferred methods. A little over 25% of the teachers responding felt that they should administer medication (See Figure 2). The results of question 3 show that presently 30.7% of the teachers administer medication. Teachers felt that parents and nurses should be more involved in administering medication to students. Students and teachers should be slightly less involved in this procedure than presently is the case.

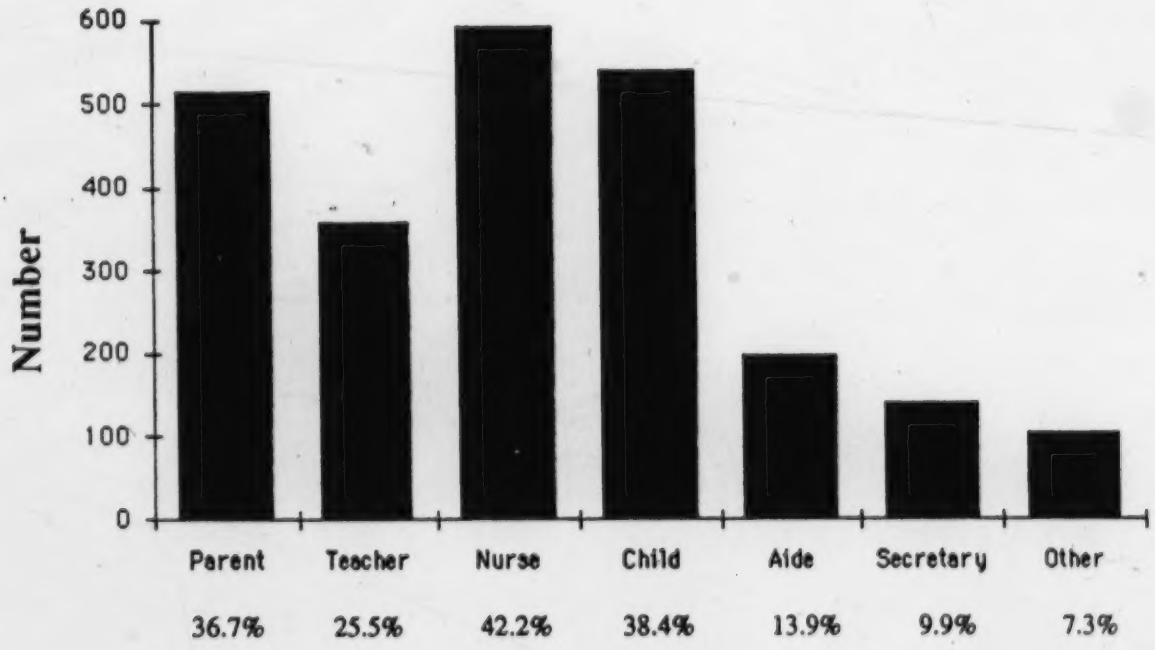
Some teachers may have checked more than one category. This should have been explained in the survey.

Personnel Administering Medication in Schools



Number of teachers responding: 1392
Multiple responses account for a total of 1986 responses

Teachers' Feelings About Who Should Be Responsible for Medication Administration



Number of teachers responding: 1406
Multiple responses account for 2444 responses

Question 5 Would you be willing to deliver health services for children with complex medical needs such as catheterization, respiratory care, tube feeding, colostomy care or other services if a school nurse was not available and you were trained to perform these services?

Yes _____ No _____ Depends _____

Comments:

Reliability = 99.2% In total, 1400 responses were received (See Table 3).

Table 3

Willingness of Teachers to Perform Complex Medical Care

Yes	No	Depends	Totals
152	920	328	[1400]
10.9%	65.7%	23.4%	[100%]

In total, 869 comments were received. Even though teachers are concerned about legal issues when dealing with medical practices, more teachers were concerned with training and practical concerns.

A majority of the teachers (65.7%) indicated that they are not willing to perform complex health services such as those mentioned in the question for a variety of reasons identified in Table 4.

Table 4

Concerns of Teachers Regarding Delivery of Complicated Health Care Procedures.

1.	Concerns over legality	79	9.1%
2.	Authorization	88	10.1%
3.	Practical concerns	163	18.8%
4.	Concerns over training	176	20.3%
5.	Other	341	39.2%
	Totals	869	100.0%

Question 6 Do you feel you have been adequately trained at College or University level to deal with medication monitoring, administering medication or unique medical caretaking procedures?

Yes _____ No _____

Reliability was 99.3%. The number of teachers responding was 1403. Teachers felt poorly prepared to carry out these duties (94.6%) Only 5.4% of the teachers felt adequately prepared through teacher training.

Question 7 Do you think it is necessary that inservice training should be provided by professional organizations on subjects dealing with drug therapy and other health care procedures?

Yes _____ No _____

Reliability was 100%. The number of teachers responding was 1365. Seventy-two percent of teachers considered inservice training provided by professional organizations to be an appropriate means of improving their skills and 28% answered NO to this question.

Teacher Involvement in Drug Therapy

Question 8 How much do you feel teachers should be involved in decisions regarding the use of medications to influence behavior or learning?

Totally _____ Be thoroughly informed _____

Be slightly informed _____ Not at all involved ____

Reliability was 98.6%. The number of responses received totalled 1379.

Teachers who felt that they should not be involved at all totalled 544 or 39.4%. Teachers who wished to be thoroughly informed numbered 654 or 47.4%. Slight information scored 172 or 12.5%, and 9 teachers or 0.07% wanted total information.

Question 9 Would you as a teacher ever request that a student be placed on medication to control behavior?

Yes ____ No ____ Depends ____

Comments:

Reliability was 99.3%. The number of teachers responding was 1381 (See Table 5).

Table 5

Teachers Requesting Medication for Students

Yes	No	Depends	Total
215	544	622	[1381]
15.6%	39.4%	45.0%	[100.0%]

Teachers comments generally fell into the following categories:

It should be left to medical professionals (17.8%).

They would request it if they thought it would improve the situation (8.1%).

They would suggest it, but not request it (17.3%).

A small percentage would never request it (2.3%).

Many other comments (54.5%) were received which could not be classified in the above categories.

Question 10 Have you ever recommended discontinuing a student's medication? Yes ____ No ____

If yes, was your recommendation followed?

Yes ____ No ____

Reliability was 96.4%. The number of teachers responding was 1349.

Three hundred and twenty teachers answered yes to this question and 1029 teachers answered no. In 92.4% of these cases, the recommendation was carried out.

Medication Problems and Documentation

Question 11 What drug treatment related problems have your students experienced? Reliability was 97%. The number of teachers responding was 989.

This was an open-ended question. Although 326 teachers recorded that no problems were experienced, nearly all other problems mentioned were of a physical nature, for example, bad teeth, early puberty, sweating, memory loss, and so forth (See Appendix D-1).

Question 12 How is drug therapy documented in your school?

Please check

Respond	Yes	No
a. Parent's permission record	___	___
b. Doctor's permission record	___	___
c. Nurse checks procedure	___	___
d. Daily adminstration record	___	___
e. Medication administered in presence of other adult	___	___
f. School district's policy followed	___	___

Intertranscription reliability was recorded by category. Reliability ranged from 93.4% to 100%. Results are included in Table 6.

Table 6
Drug Administration Documentation

Respond			Yes	No
948	a.	Parent's permission record	772(81.4%)	176(18.6%)
701	b.	Doctor's permission record	310(44.2%)	391(55.7%)
625	c.	Nurse checks procedure	111(17.8%)	514(82.2%)
649	d.	Daily administration record	290(32.2%)	440(67.8%)
626	e.	Medication administered in presence of other adult	164(20.6%)	462(79.4%)
864	f.	School district's policy followed.	653(75.6%)	211(24.4%)

Question 13 Have you ever experienced disagreements with parents or residential caregivers regarding administering medication to any of your students at school?

Yes ____ No ____

Reliability was 99.2%. The number of responses received totalled 1237.

Only 11.9% of the respondents indicated disagreements over medication administration with caregivers. Problems were encountered such as: transportation of medication to schools, amount of medication stored at schools, and medication dispensed to schools in containers without clear directions.

Question 14 Have you ever discussed changing medication times with the parents or caregivers of your students so that you don't have to be involved in administering medication?

Yes ____ No ____

Reliability was 97.1%. The number of responses received totalled 1332.

Two hundred and thirty or 17.3% answered yes to this question and 1102 or 82.7% did not discuss medication change with caregivers.

Question 15 Are students in your school allowed to carry their own medication for the purpose of self-medication?

Yes ____ No ____

Reliability was 100%. The number of teachers responding was 1308.

Self-medication was allowed for 921 or 70.4% of the students involved in this survey. The number of students not allowed to self-medicate was 387 or 29.6%.

Question 16 Could your students presently be expected to learn to self-administer their medication?

Yes ____ No ____

Reliability was 97.6%. The number of teachers responding was 1256.

One thousand and eighteen teachers or 81.8% felt that their students should learn to self-medicate. Two hundred and thirty eight or 18.2% of the teachers felt that their students were not capable of doing so.

Question 17 Where is medication stored in your school? Reliability was 97.5%. The number of responses received totalled 1158.

The results show that in 17.3% of the cases storage of medication is unknown to the teacher. In 54.49% of the cases, medication was stored in places such as locked teachers' desks, locked filing cabinets, locked closets, and so forth; however, many places were described which may or may not be secure, for example, the staff fridge, teachers' desks, infirmary, general office, lunch boxes, and nurse's mailbox (See Figure 3 and Appendix D-2).

Communication With Other Professionals

Question 18 How often do you have communication with the doctor who prescribes medication to your students with regards to behavior changes, side-effects, dosage, special instructions, etc.?

a. When contacted by the doctor ____
b. When medication is changed ____
c. When suspecting problems ____
d. Never ____

Reliability by category ranged from 90.9% to 100%. The number of teachers responding was 1294.

Regarding communication about changes in medication, 67.7% of the respondents reported that they were never in contact with a doctor, and 21.7% were at times in contact with a doctor (See Figure 4)

Present Storage of Medication in Schools

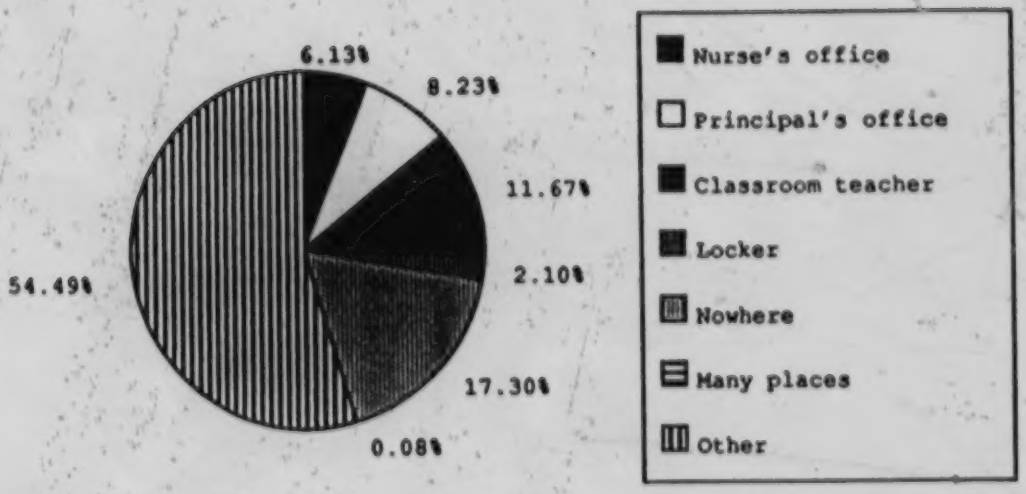
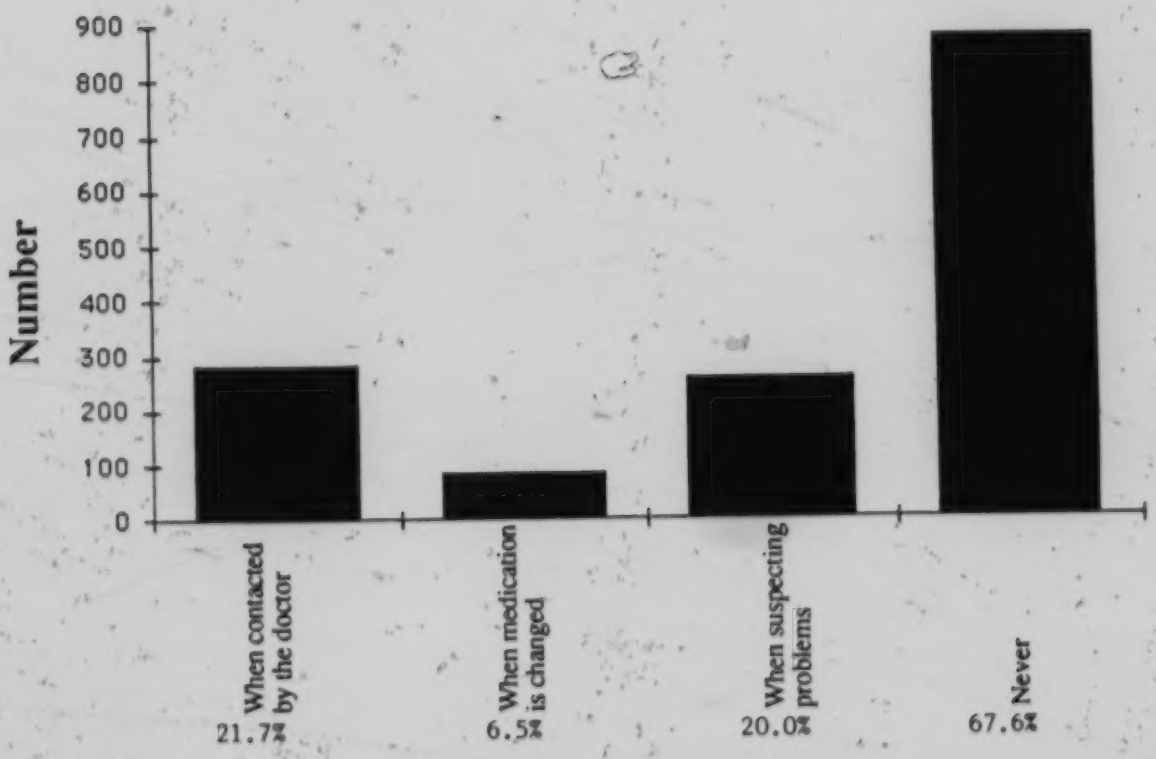


Figure 4

Frequency of Physician/Teacher Exchanges



Number of teachers responding: 1294
Multiple responses account for 1499 responses

Question 19 How often do you contact the pharmacist who dispensed the medication?

a. When medication is changed _____
b. When suspecting problems _____
c. Never _____

Reliability range was determined by category to be 99.2% to 100%. The number of responses received totalled 1297.

Most teachers (95.3%) do not contact the pharmacist who dispenses the medication. A total of 5.2% of the teachers had contacted the pharmacist when they suspected problems or when the medication was changed.

Legal Considerations

Question 20 Do you feel the provision of health care services to special needs students requires attention by your provincial department of education and your local school board.

Yes _____ No _____

Reliability was 97.3%. The number of teachers responding was 1287.

Most teachers (83.6%) felt that the Department of Education and local school boards need to address the provision of health care services for special needs students.

Question 21 Should teachers be permitted to administer medications to their students in school?

Yes _____ No _____

Reliability was 97.8%. The number of responses received totalled 1320.

Slightly over half of the teachers (51.2%) felt that they should be allowed to administer medication to their students in school. Almost as many, 48.8%, felt that teachers should not be allowed to administer medication.

Question 22 Does your school board use a set of guidelines for administration of medications to students?

Yes _____ No _____ Don't know _____

Reliability was 98.6%. The number of responses received totalled 1374.

Many teachers (39.4%) did not know if their school boards have guidelines in place for the administration of medication to students by teachers.

One hundred and forty-four teachers (10.5%) reported that their school boards do not have a policy, but 688 teachers (50.1%) reported that their school boards have a medication administration policy in place. These results are displayed in Figure 5.

Question 23 In your opinion should guidelines for administering medications be provided by:

	Yes	No
a. Provincial Government Dept. of Education	___	___
b. Local School Board	___	___
c. School Trustees Association	___	___
d. Teachers Federation	___	___
e. Other (Specify)	___	___

Reliability range among categories was 97.6% to 99.1%. The number of responses received varied by category (See

Figure 5

Teachers' Awareness of School District Policies Dealing with Medication

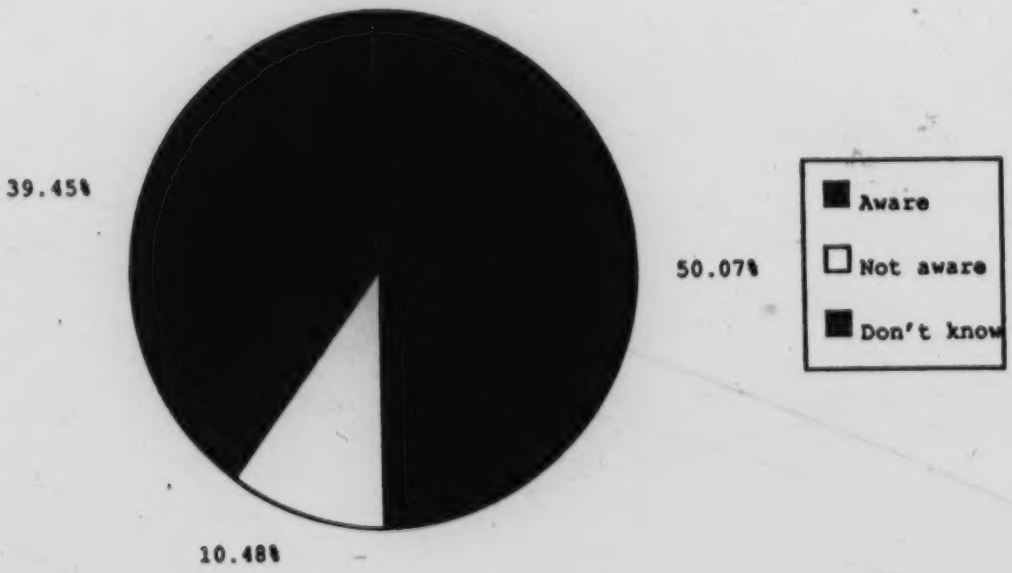


Table 7).

Table 7

Preferred Agencies to Provide Guidelines

Respond		Yes	No
1103	Provincial Government	940 [83.4%]	183 [16.6%]
1049	Local School Board	885 [84.4%]	164 [15.6%]
752	School Trustees Association	280 [37.2%]	472 [62.8%]
900	Teachers Federation	589 [65.4%]	311 [34.6%]
436	Other (Specify)	176 [40.4%]	260 [59.6%]

From the comment section, it can be deduced that the category named "Other" was typically used to describe several of the listed organizations working together to provide one set of guidelines rather than individual and sometimes conflicting policies. It was also suggested that the medical profession set up guidelines which can be adopted by individual organizations (See Appendix C-3).

Demographic Information

Question 24 Demographic information. The setting you work in is best described as

a. day care ____
b. pre-school ____
c. elementary school ____
d. secondary school ____
e. other (describe) ____

Reliability range among categories was 97.4% to 1005. The number of responses received totalled 1406.

Some educational settings were reported as combinations of elementary and secondary schools or pre-schools and

elementary schools. This possibility seems realistic as a large part of the survey took place in rural areas where schools are often combined. These results are displayed in Figure 6. It must be mentioned here that 90% of the returned surveys came from urban settings.

School Population - 1181 Respond

Additional Information Regarding the Population Surveyed

Total for all responses	362,607
Average per school	307.0
Range represented	145,723 to 437,168
Estimate	291,000 Students served
Total Respondents	1424
Maximum Number of Schools	1424
Minimum Number of Schools	475 (1424/3)
Estimated Number of Schools	950 (mid-range)

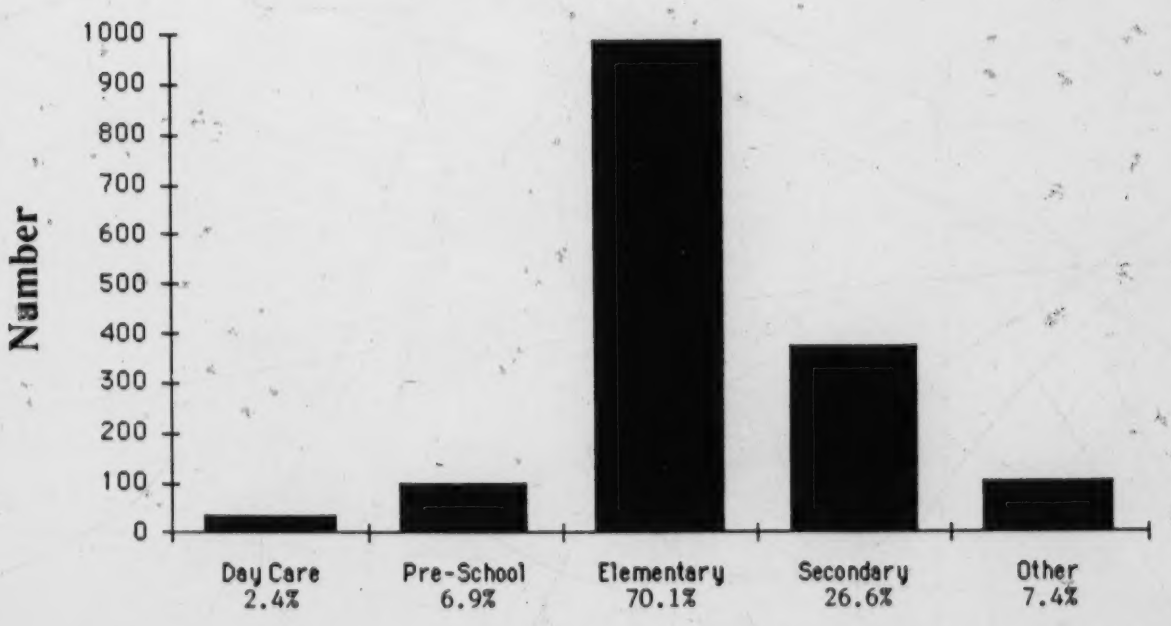
Alberta Education (1989) reports that in 1989 a total of 430,725 students were enrolled in Alberta schools. Of this number 223,221 (52.3%) were elementary school children. A total of 27,329 children (6.3%) were enrolled in special education programs, which included visually impaired and hearing impaired students.

Question 25 The students you work with would be best described as (check all that apply)

a. regular students ____
b. mildly or moderately mentally handicapped ____
c. physically handicapped ____
d. behavior disordered ____
e. medically fragile ____
f. severely or multiply handicapped ____
g. other describe ____

Figure 6

Types of Schools in Which Teachers Work



Number of teachers responding: 1406
Multiple responses account for 1596 responses

Reliability as per category ranked from 97.2% to 100%. The number of responses received totalled 1408.

Hearing disabled students were not listed on the original form, but they were added due to a high incidence rate in the "other" category.

The high number of regular students (79.8%) with whom teachers work may be explained in terms of integration policies and the fact that in small communities separate classes for handicapped students may not exist.

As the total in the student category (2354) far exceeds the total of teacher responses (1408), it is obvious that teachers checked more than one category for some students. In order to obtain a clearer indication of the type of students teachers work with, the instructions on the questionnaire should have instructed the teachers to check the number of students in each category. Figure seven illustrates the relative numbers of teachers checking each category.

Question 26 Is your school located in:

a. city of more than 30,000 ____
b. municipality of 10,000 to 30,000 ____
c. rural setting ____

Reliability was 97.9%. The number of teachers responding was 1405 (See Figure 8).

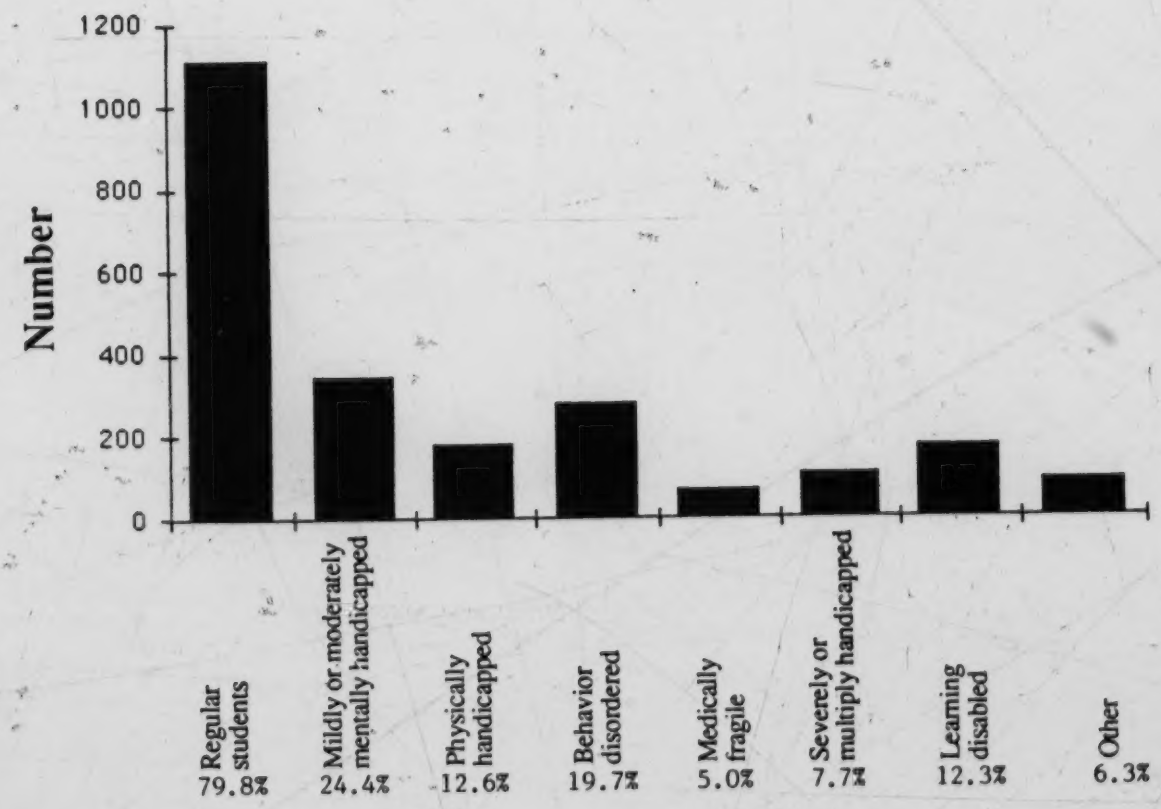
Alberta Education (1989) reports that 80% of the Alberta population resides in urban settings. Over 90% of the returned surveys came from urban settings (See Appendix C-1 for postmark analysis).

Summary

As the survey applied to regular and special education teachers the problems, which could possibly arise from the administration of medication in schools, may be identical for all teachers, especially since the boundaries between special education and regular classes are becoming indistinguishable. The information gathered therefore will be applicable and useful to all teachers in the school system, be it public or private.

Figure 7

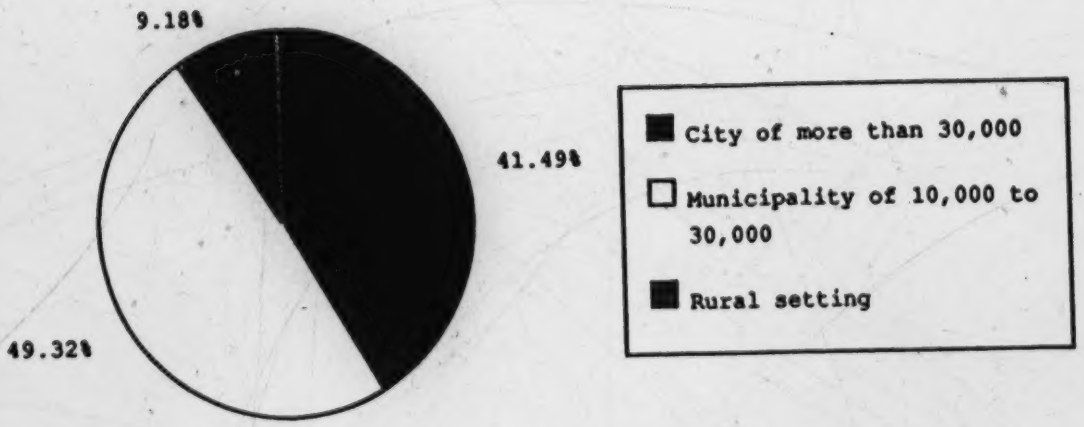
Categories of Special Education Students Represented



Number of teachers responding: 1408
Multiple responses account for 2354 responses

Figure 8

Information on Population Distribution



Chapter V

DISCUSSION

Introduction

Teachers displayed much interest in this topic, evident from the comments, letters, and policies included with the completed questionnaire. Pertinent newspaper articles also were attached to some responses. Many teachers indicated that a uniform policy is overdue and that they are looking forward to seeing guidelines set forth by the combined authorities.

Frequency of Administration and Allied Personnel

The number of classrooms where one or more students received medication as reported by the teachers was 50.3%. In a recent study of classrooms for students with severe impairments, medications were administered in 85% of the classrooms surveyed, with the teacher responsible 45% of the time (Ault, Guess, Struth, & Thompson, 1988). The discrepancy in percentages was expected since the Alberta sample was not limited to special education classrooms. In the Alberta schools surveyed, 30.7% of the teachers administer medication. Probable for the same reason as quoted above, the percentage is lower than quoted by Ault, Guess, Struth, and Thompson (1988).

The percentage of classrooms with students receiving a stimulant type of medication, such as Ritalin, is 23.3%. Anti-convulsant medication followed with 10.3% and a

surprisingly high percentage of 8.5% for anti-asthmatic drugs. The question asked the teacher to name some drugs used in the classroom; therefore, the percentages reported reflect the number of classrooms and not the number of students.

A very high percentage of students self-medicate (47.7%). Most likely these students are older and more independent; however, it is not known if these students carry a daily or more-than-daily dosage of medication with them, or whether this medication is stored at school. This is especially worrisome since Ritalin, which is in widespread use, has now become a frequently abused drug (Gold, 1990).

The teacher administers the medication in 30.7% of the schools where children receive medication. Since this was a question which could receive multiple answers, it does not mean that the teacher is the only one in the school who administers medication: Other personnel could be involved as well. This percentage seems low since 51.4% of the teachers feel that they should be permitted to administer medication. It is surprising that 21.2 % of the parents administer medication is schools where medication is used by students since in many cases both parents work and may not be able to come to school during working hours. However, since some teachers and school boards to not wish to take responsibility for the

administration of medication in schools, this policy may be reflected in this percentage.

It is apparent that school nurses play a minimal role in the adminstration of medication in schools. Only 8.1% of students in schools receive their medication from a nurse. This most likely takes place in settings where a large number of handicapped students attends an educational institution.

A total of 27.5% of students receive their medication from a teaching assistant or secretary in schools. This seems to be an unsatisfactory solution unless these persons have received specialized medical training. Since these professions are less regulated than teaching or nursing, the control of this practice may be complex and difficult.

Even though only 8.1% of nurses administer medication in schools responding to the survey, 42.2% of the teachers felt that nurses were the logical choice for this duty. Teachers also thought that parents should take a larger share of the responsibility (37.7%). Teachers felt that fewer children should self-medicate (38.4%) than presently is the case (47.4%). This may be due to the fact that teachers have seen situations where medications were handled in a irresponsible manner. For example, one teacher reported in the comment section of the survey that a student wished to share his medication with a friend.

Complex Health Care Procedures

Many teachers (65.7%) are not willing to carry out procedures such as catheterization, respiratory care, tube feeding, and colostomy care, even if trained personnel were not available and the teacher was trained to carry out such procedures. Some teachers (23.4%) said performing these procedures would depend on the circumstances. In certain states in the United States, catheterization by school personnel is a mandated policy (Stauffer, 1984). For the teachers responding, practical and training concerns outweighed legal concerns.

Training at college or university level was felt to be inadequate. Only 5.4% of the teachers were satisfied with the medical aspect of the special education training. For this reason, 72.3% of the respondents would like to see more inservice and training during teacher preparation years on drug therapy and health care procedures.

Teacher Involvement in Drug Therapy

Even though special education teachers may not be able to escape some involvement with their students' medication, 34.4% of the teachers do not want to be involved at all. This is a surprising fact since the effects of medication are undoubtedly apparent in the students' learning and behaviour while at school. That the behaviour of students in the classroom affects teachers is clear because 61.6% of the educators would consider requesting that a student be

medicated. Nineteen teachers said that they would never make such a request, and 145 educators felt that is should be left to medical professionals. Only 23.7% of school staff had ever recommended that medication be discontinued, and in 92.4% of the cases, this recommendation was carried out. Many teachers (66%) had noticed a variety of side-effects due to medications.

Drug Therapy Permission Records

Teachers appear to be concerned about receiving the parents' permission for drug therapy since 81.4% of teachers do obtain these documents. Many school districts appear to have a policy regarding the administration of drugs in schools, and in many cases, the teachers involved have followed these guidelines (75.6%). Doctor's permission to conduct drug therapy were obtained by 44.2% of the teachers; however, the involvement of the school nurse was a mere 17.8%. In general, teachers has not experienced much trouble over medication with parents or other caregivers, but very few teachers had requested parents to change medication administration times in order to minimize their involvement.

As mentioned earlier, many teachers said that in 70.4% of the cases students self-medicate and that 81.8% of the students would be capable of learning to self-medicate.

Storage of Medication

The results of the survey presented a peculiar picture with regards to medication storage. Compared to other places (54.6%), the nurse's office rated very low for storage (6.1%). There seemed to be no consistency with regards to storage. Most likely this is due to the lack of directives from school policies and to the high number of students self-medicating. The survey results showed a scene which could lead to possible trouble for teachers and school boards.

Communication With Professionals About Drug Therapy

Physician/teacher and pharmacist/teacher exchanges proved to be low. Many teachers (67.6%) reported that they never contact a doctor or pharmacist or are never contacted by these professionals about their students' medication. Many students self-medicate with medications which are in the non-psychotropic category or which are not anti-convulsants; however, most medications have side-effects which may affect school performance or behavior; therefore, the teacher should be informed about the drug therapies of his or her students.

Policies Dealing With Drug Therapy in Schools

Even though educators may be involved in drug therapy, some (39.4%) are not familiar with the board policy which deals with health care in their districts. The survey

results indicated that a number of school boards (10.5%) have not established policies dealing with health care procedures. Surveyed teachers (83.6%) indicated that the provision of health care services in schools needs to be addressed by the Department of Education in this province. The local school boards and the Alberta Teachers Association were the next choices to provide guidelines. However, from the comment section, it became clear that one policy approved by the three agencies mentioned would be the only satisfactory solution to this problem.

Demographic Information

Although the full range of educational settings was represented, the bulk of the information presented by the survey came from elementary schools. The estimated number of schools involved was 950, and the estimated number of students involved was 291,000.

Teachers report that 79.8% of their students are regular students. Teachers were asked to check all categories applicable to their students. The total percentage of all categories was 167.2%. It is assumed that teachers may have checked more than one of the seven categories presented, e.g., regular and physically handicapped. Other possible reasons for this reported percentage could be integration practices and high school teachers reporting on the same students.

Teachers in rural settings returned 9.18% of the completed surveys. It is especially in these settings that inservice training for teachers is necessary in order to provide for students requiring complex health care because emergency treatment may not be as readily available as in urban centres.

From the survey results it can be reported that a considerable number of staff employed by Alberta school districts engage in the administration of medication. Also, many teachers are willing to be involved in drug therapy for their students. School personnel have expressed their concerns about the legality of this practice, which has been indicated by the percentage of survey returns.

Many teachers felt that they should not be involved in complex health care procedures, because their training did not include this aspect of education. Drug therapy permission records, storage of medication, and communication with medical professionals are issues which need to be clarified. Teachers indicated that one policy, approved by all agencies involved in medical concerns of students in Alberta schools, would lessen the confusion which adds an unnecessary burden to an already difficult task.

Summary

The questionnaires distributed could have been improved if schools would have been asked to indicate how many questionnaires were returned from each address. The possibility exists that some educational facilities returned more than three questionnaires thus overrepresenting certain student categories which could have affected the results.

The withdrawal of approval of the sponsoring agent may have caused a minimizing effect on the return rate of the surveys.

The information gathered and discussed applies to all teachers in the school system and hopefully the result of this survey will work toward an improved method of administering medication in schools.

Chapter VI

RECOMMENDATIONS

School Nursing Profession

Providing health-related procedures is critical in maintaining students' participation in the classroom. The issue of meeting the needs of students with health problems is unavoidable. The survey results indicate that the involvement of the school nurse is minimal and needs to be addressed. Teachers have indicated that the school nurse should assume a greater responsibility for providing health care for handicapped students. In only 8.1% of all the schools surveyed, the school nurse administered medication;
and in only 6.1% of the schools, the school nurse was involved in medication storage. It is suspected that in larger schools with resource rooms for handicapped students nurses may be employed by school boards to act in the dual capacity of teaching assistant and nurse. This appears to be a satisfactory solution. It would be very expensive for a nurse to be employed to administer medication on a daily basis in a school where only 1 or 2 students require medication.

Catheterization is already a part of a special education teacher's duties in certain states in the United States (Stauffer, 1984). Medical professionals need to establish which duties a teacher can perform and then provide training for teachers so that these procedures can

be carried out safely. It should also be established which medical duties school personnel cannot carry out. In this case, school nurses will see clearly what is expected from them in Alberta schools. The present situation makes all stakeholders anxious and unwilling to expediate the integration process, because responsibilities are not clearly defined.

Department of Education of Alberta

In integrated settings, it is unrealistic to expect a teacher to carry out complicated and time-consuming medical procedures while being responsible for a number of other students. An appropriately trained person may be required for part of the day to perform such duties.

It is the personal opinion of the investigator that a teacher who chooses special education should expect to perform health-related tasks and should therefore comply with requests for such duties, providing safe-guarding measures for the student and the teacher have been formalized. This view seems to be shared by over half of the teachers surveyed as they also felt that they should be involved in the medical aspect of their students' education. As a result, an individual assessment of the needs of students and teachers is necessary in order to arrive at a satisfactory solution.

Local school boards need to be able to consult with the Department of Education for advice. The Department of

Education should initiate action to develop a health care policy in consultation with the Alberta Teachers Association, Alberta School Trustees Association, parent groups, and local school boards.

In the United States, this matter has been considered much more carefully possibly because lawsuits seem to be more common in that country. Many policies existing in different states can be examined, and an ideal set of guidelines can be gleaned from these policies. However, most of the policies in the various states are in conflict with the existing acts governing the nursing profession. Therefore, these policies do not protect school personnel.

It is apparent that teachers are very concerned about the lack of inservice or training at colleges and universities concerning drug therapy and medical procedures in schools. More training could be mandated by the Provincial Government when changes in curricula for teacher training are proposed. Presently, only teachers who specialize in severe disabilities are required to take a medical aspects course as part of their training. It seems necessary that all special education teachers and possibly all teachers should be required to take a course dealing with physical aspects of students with special needs.

School Districts

In over 75% of the cases surveyed, teachers follow the school district's policy. Answers to questions on storage

and permission-to-medicate forms show a frightening picture of inconsistency and carelessness exposing teachers, principals, school districts, and other school personnel to legal action if an accident or mistake should happen. It seems that school districts have relied upon a variety of guidelines for protection since consistency in policies regarding medication administration among school boards is non-existent.

Guidelines should be available from the Department of Education. This would prevent duplication of legal costs by individual districts, and when changing positions, teachers would not have to check out regulations. Also, medication storage procedures in schools need immediate attention before medication errors or abuse occur.

Teachers and Alberta Teachers Association

A number of teachers are not familiar with policies which regulate the administration of medication and medical procedures. To safeguard their students and themselves, teachers must familiarize themselves with all policies in existence and then decide how to deal with the dilemma presented to them.

The Alberta Teachers Association advises teachers against taking on duties which have medical aspects; however, all teachers who deal with medical issues in their classrooms are not aware of this a well advertised policy statement in their own publications would serve its members

well. This statement should be repeated frequently until law changes have come into effect and guidelines have been mandated by the provincial government. The Alberta Teachers Association would be wise to advise teachers to check with their local school boards as many teachers indicated that they were not familiar with their district's policy on medication. This can be done through memos to local teachers association and the Alberta Teachers Association Members Handbook.

The return rate of the questionnaires indicated that teachers are concerned about medical procedures in the classroom. Many positive comments were received, and 50% of the teachers approached are willing to provide medical assistance so that students can attend school. The Alberta Teachers Association needs to be aware of this and assist their members in cooperating with other agencies so that a policy may be established.

Conclusion

Many teachers have indicated a wilingness to participate in and assume tasks which will normalize the school experience of handicapped students and lessen the burden of involved parents caregivers. These tasks involve medical or parental responsibilities.

Hopefully, the Department of Education will nurture the dedication to students shown by teachers and will show

leadership by making it clear to teachers what is expected of them and how they will be protected.

Recommended Components of Medication Administration Policy

Guidelines which precede a change in the Nursing Profession Act are obviously not legal and will not protect school personnel in case of an accident; however, a policy may already be established in anticipation of a change in the law.

The policy with regards to the administration of medication should at least include, in addition to the procedures in use, the following:

1. Release of liability form for teachers,
2. Rules regarding storage of medication,
3. Rules regarding amount of drugs stored at school,
4. Labelling of containers,
5. Delivery of medication to schools,
6. Disposal of medication,
7. Organization of plan for administering medication by school nurse,
8. Personnel training,
9. Consultation with physician/pharmacist,
10. Required record keeping,
11. Administration of drugs in front of another adult,
12. Self-administration,
13. Access of designated caregivers to drug/pupil information, and

14. Inclusion of procedures on individual education profile.

An extensive procedural plan to provide health care for students has been prepared by Western Hills, Area Education Agency, Preschool Services Department.

Future Research

Many unanswered issue questions remain after this study. Some obvious issues are listed below:

1. It has been extremely difficult for the investigator to obtain pertinent literature regarding this topic. Most literature has been found in journals from the United States. Canadian content has been limited to a few newspaper articles or articles in professional teacher publications. Alberta teachers are poorly informed about this topic. More research in this field needs to be done and published in education journals.
2. The area of medical procedures in schools needs to be broken into two components:
   a: Medication Administration and
   b. Medical Procedures.
   In this present study, these areas at times overlapped, making it difficult to separate these two issues. The area of medical procedures certainly needs more investigation.

3. The results of the question regarding drug therapy in the classroom pointed to an extremely high percentage of Ritalin use in Alberta special education classrooms. The percentage quoted in this study is much higher than the investigator found in other studies (Gadow & Kane, 1983). A study with regards to Ritalin use in Alberta would be of interest.
4. Teachers reported that certain school boards do not have a policy with regards to medication administration or that they are not aware of this policy. A separate study could be devoted to the issue of liability of school boards.
5. Assessing the needs of rural school districts with regards to qualified staffing in special education settings would make an interesting investigation, which most likely has not been undertaken in Alberta.

As this study was general in nature, many other studies could be generated from the present investigation. The author welcomes all further studies in this little explored aspect of education.

REFERENCES

Alberta Education. (1989). Education in Alberta: Facts and figures. Edmonton, AB.

Alberta School Act of 1989. Bill 27. S-3.1. Province of Alberta. Edmonton, AB: Queen's Printer.

Alberta Teachers' Association Members' Handbook. (1988). Edmonton, AB: Barnett House.

Atlantic provinces teachers concerned about having to give medical care. (1985, January). The A.T.A. News, p. 3.

Ault, M., Guess, D., Struth, L., & Thompson, B. (1988). The implementation of health-related procedures in classrooms for students with severe multiple impairments. Journal of the Association for the Severely Handicapped, 13, 100-109.

British Columbia Health Act of 1982. Vol. 3. Public Health Nursing. Program for School Age Children. Victoria, BC: Ministry of Health.

British Columbia Teachers Federation Policy Manual. (1987). Health and welfare of students. Vancouver, BC.

Browning, E.R. (1983). Teaching students with severe emotional and learning impairments. Newton, MA: Allyn & Bacon.

Brulle, A.R., Barton, L.E., & Foskett, J.J. (1983). Educator/physician interchanges: A survey and suggestions. Education and Training of the Mentally Retarded, 18, 313-317.

Bryan, E., Warden, M.G., Berg, B., & Hauck, G.R. (1978). Medical considerations for multiple-handicapped children in the public schools. The Journal of School Health, 48, 84-89.

Calgary public school board policy manual. (1984). Calgary, AB: Calgary Public School Board.

Courtnage, L. (1982). A survey of state policies on the use of medication in schools. Exceptional Children, 49, 75-77.

Development and use of policies regarding administration of prescribed medication to children (1977, January). Exceptional Children, 15.

Eberlein, L. (1987). Canadian teachers: Legal and ethical concerns. Edmonton, AB: University of Alberta.

Education for All Handicapped Children Act of 1975. Public Law 94-142. United States Government Printing Office.

Elliott, O. (1988, Dec. 11). Who cares for special needs children during school? The Edmonton Journal, p. 2.

Epstein, M.H., & Ollinger, E. (1987). Use of medication in school programs for behaviorally disordered pupils. Behavioral Disorders, 12, 138-145.

Fowler, F.J. (1988). Survey research methods. Newbury Park, CA: Sage.

Fox, L., & Westling, D.L. (1986). The prevalence of students who are profoundly mentally handicapped receiving medication in a school district. Education and Training of the Mentally Retarded, 21, 205-210.

Gadow, K. (1986). The role of caregivers in pharmacotherapy. The Exceptional Parent, 16, 46.

Gadow, K.D. (1982). Problems with children on medication. Exceptional Children, 49, 20-27.

Gadow, K.D., & Kane, K.M. (1983). Administration of medication by school personnel. The Journal of School Health, 53, 178-183.

Gadow, K., & Poling, A.G. (1988). Pharmacotherapy and mental retardation. Boston: Little Brown.

Gee, G.E., & Sperry, D.J. (1978). School law and the public. A compendium. Boston: Allyn & Bacon.

Gold, M. (1990, July 30). Lowdown on dope. Edmonton Journal, p. B2.

Graff, J.C., Ault, M., Guess, D., & Taylor, M. (1990). Health care for students with disabilities, an illustrated guide for the classroom. Baltimore: Paul Brookes.

Hamson-Hoyano, L.C., (1984). The "prudent parent": The elusive standard of care. In C. Ridgwell (Ed.), U.B.C. law review Vol. 18 (pp. 1-34). Victoria, BC: Morriss.

Haslam, H.A., & Valletutti, P.J. (1985). The teacher's role in the diagnosis and management of students with medical problems. In H.A. Haslam & P.J. Valletutti (Eds.), Medical problems in the classroom. The teacher's role in diagnosis and management (pp. 1-21). Austin, Texas: Pro-ED.

Holvoet, J.F., & Helmstetter, E. (1989). Medical problems of students with special needs: A guide for educators. Boston: College-Hill.

Jenkins, R.L. (1983). Mainstreaming, malpractice, and new roles for the school nurse. Education, 104, 206-212.

Johnson, M.P., Boyd-Lubker, B., & Glen-Fowler, M. (1988). Needs assessment for the educational management of children with chronic illnesses. Journal of School Health, 58, 232-257.

Joint task force for the management of children with special health needs. (1990). Reston, Va.: The Council for Exceptional Children.

Kansas Nurse Practice Act of 1988. Kansas State Board of Nursing. 65-1124, K-L.

Keeler, B.T., & Harrison, A.K. (1982). Teachers' rights, responsibilities and legal liabilities. Edmonton, AB: The Alberta Teachers' Association.

Lamb, R.L. (1980). Legal liability of school boards and teachers for accidents. In Nova Scotia school board's association school board members' manual (pp. 1-5). Halifax, NS: Nova Scotia Public School Board.

Lindsey, C.N., Leibold, S.R., Ladd, F.T., & Ownby, R. (1980). Children on medication: A guide for teachers. Rehabilitation Literature, 41, 124-125.

Ludlow, B.L., & Sobsey, R. (1984). The school's role in educating severely handicapped students. Bloomington,

IN: Eductional Foundation Phi Delta Kappa.

Mackay, W.A. (1984). Education law in Canada. Toronto, ON: Edmond-Montgomery.

Medication guidelines. (1983). Edmonton, AB: Residential Agencies.

Medical treatment of students. (1981). Edmonton, AB.: Alberta School Trustees Association.

Nursing Profession Act of 1983. Government of Alberta. Chapter N-14.5

Orelove, F.P., & Sobsey, D. (1987). Educating children with multiple disabilities. A transdisciplinary approach. Baltimore: Paul Brookes.

Parry, M. (1985). Mainstreaming: Legal obligations for administrators. The Canadian School Executive, 4, Fall, 3-5.

Poirier, D., Goguen, L., & Leslie, P. (1988). Education rights of exceptional children in Canada. A national study of multi-level commitments. Toronto, ON: Carswell.

Policy guidelines and administrative procedures handbook. (1985). Edmonton, AB: Edmonton Separate School District.

Prehm, H.J. (1987). Teaching mainstreamed students. Denver: Love.

Procedures for management of children with special health needs in the educational setting. (No Date). Sioux City, IA: Western Hills Area Education Agency.

Registered Nurses Act of 1988. State of Washington. RCW 18.88.290 - 18.88.295

Rose, T.L. (1980). The education of all handicapped children act: New responsibilities and opportunities for the school nurse. The Journal of School Health, 50, 30-31.

Ross, E. (1987, Oct. 7). Allergy victim awaits decision on school return. The Calgary Herald, p. A2.

Ross, J.C., & Foreman, C.M. (1983). An analysis of policies regulating medication in Ohio public schools. Journal of School Health, 53, 589-593.

Rozovsky, F.A. (1984). Consent to treatment. A practical guide. Boston: Little Brown.

School boards made responsible for providing some health support services. (1984, October). Education Ontario, p. 4.

Simeonsson, R.J., & Simeonsson, N.E. (1981). Medication effects in preschool children. Topics in Early Childhood Special Education, 1, 61-73.

Sparks, M.R., & Rabinow, J.D. (1984). How the good samaritan act protects you. Nursing, 9, 12-14.

Statutes Relating to Nursing of 1988. State of Nebraska. 71-1, 132.06, 1.

Stauffer, D.T. (1984). Catheterization. A health procedure schools must be prepared to provide. The Journal of School Health, 54, 37-38.

Steenson, B., & Sullivan, A.R. (1980). Support services in the school setting: The nursing model. The Journal of School Health, 50, 246-249.

White, E. (1981). Health services demanded of the schools? Injections, medications? The American School Board Journal, 168, 25-28.

Wood, S.P., Walker, D., & Gardner, J. (1986). School health practices of children with complex medical needs. Journal of School Health, 56, 215-217.

APPENDIX A

TEACHERS' QUESTIONNAIRE 78

Appendix A

Survey on:

Administration of Medication to Students by Teachers.

1. How many students in your classroom receive medication?

2. Name some drugs which are used by students in your classroom?

3. Who currently administers medication in your school? Please check

Parent	_____
Teacher	_____
Nurse	_____
Child (self medicate)	_____
Aide	_____
Secretary	_____
Other (Specify)	_____

4. Who do you feel should administer medications in your school? Please check

Parent	_____
Teacher	_____
Nurse	_____
Child (self medicate)	_____
Aide	_____
Secretary	_____
Other (Specify)	_____

5. Would you be willing to deliver health services for children with complex medical needs such as: catherization, respiratory care, tube feeding, colostomy care or other services, if a school nurse were not available and you were trained to perform these services?

Yes _____ No _____ Depends _____

Comments: _____

_____

_____

6. Do you feel you have been adequately trained at College or University level to deal with medication monitoring, administering medication or unique medical caretaking procedures?

Yes _____ No _____

7. Do you think it is necessary that inservice training should be provided by professional organizations on subjects dealing with drug therapy and other health care procedures?

Yes _____ No _____

8. How much do you feel teachers should be involved in decisions regarding the use of medications to influence behaviour or learning?

Totally _____ Be thoroughly informed _____

Be slightly informed _____ Not at all involved _____

9. Would you as a teacher ever request that a student be placed on medication to control behaviour?

Yes _____ No _____ Depends _____

Comments: _____

_____

_____

10. Have you ever recommended discontinuing a student's medication?

Yes _____ No _____

If yes, was your recommendation followed?

Yes _____ No _____

11. What drug-treatment related problems have your students experienced?

12. How is drug therapy documented in your school?

Please check	Yes	No
a. Parents permission record	___	___
b. Doctor's permission record	___	___
c. Nurse checks procedure	___	___
d. Daily administration record	___	___
e. Medication administered in presence of other adult	___	___
f. School district's policy followed	___	___

13. Have you experienced disagreements with parents or residential caregivers regarding administering medication to any of your students at school?

Yes _____ No _____

Please specify the problem.

14. Have you ever discussed changing medication times with the parents or caregivers of your students so that you don't have to be involved in administering medication?

Yes _____ No _____

15. Are students in your school allowed to carry their own medication for the purpose of self-medication?

Yes _____ No _____

16. Could your students presently be expected to learn to self-administer their medication?

Yes _____ No _____

17. Where is medication stored in your school?

18. How often do you have communication with the doctor who prescribes medication to your students with regards to behaviour changes, side effects, dosage, special instructions, etc.?

a. When contacted by the doctor _____
b. When medication is changed _____
c. When suspecting problems _____
d. Never _____

19. How often do you contact the pharmacist who dispensed the medication?

a. When medication is changed _____
b. When suspecting problems _____
c. Never _____

20. Do you feel the provision of health care services to special needs students requires attention by your provincial department of education and your local school board.

Yes _____ No _____

21. Should teachers be permitted to administer medications to their students in school?

Yes _____ No _____

22. Does your school board use a set of guidelines for administration of medications to students?

Yes _____ No _____ Don't Know _____

23. In your opinion should guidelines for administering medications be provided by:

	Yes	No
a. Provincial Government Dept. of Education	___	___
b. Local School Board	___	___
c. School Trustees Association	___	___
d. Teachers Federation	___	___
e. Other (Specify)	___	___

_____

_____

_____

24. Demographic Information

The setting you work in is best described as:

a. daycare _____
b. preschool _____
c. elementary school _____
d. secondary school _____
e. other (describe) _____

_____

_____

f. school population _____

25. The students you work with would be best described as

(check all that apply)

a. regular students _____
b. mildly or moderately mentally handicapped _____
c. physically handicapped _____
d. behavior disordered _____
e. medically fragile _____
f. severely or multiply handicapped _____
g. other describe _____

_____

_____

26. Is your school located in:

a. city of more than 30,000 _____
b. municipality of 10,000 to 30,000 _____
c. rural setting _____

27. General Comments:

Please return completed Surveys to:

Len Bakker
Educational Psychology
Severe Disabilities Program
University of Alberta
Edmonton, Alberta
T6G 2G5
c/o Dr. Richard Sobsey

APPENDIX B

Page

LETTERS 85

Appendix B-1

January 1989

Dear Principal:

The issue of the administration of medical procedures in schools by school staff is of increasing concern. The move by many jurisdictions toward total integration of even the most severely handicapped children requires that policies, procedures and issues regarding medical procedures be addressed.

I am a graduate student at the University of Alberta doing research in the area of medical procedures in schools. I anticipate the product of my research will be a clear picture of the issues in Alberta and recommendations as to how the many stakeholders may proceed to develop policies and procedures. The information will be made available to jurisdictions participating in the survey.

Your support of this timely project would be greatly appreciated. Please have as many teachers as are willing complete the enclosed questionnaire. Your responses should be returned in the enclosed envelope by February 28, 1989. Three copies of the questionnaire are enclosed. Please make additional copies if required.

Thank you in advance for your assistance. If you require further information, please call Dr. Richard Sobsey at 432-3755.

Sincerely,

Len Bakker
Educational Psychology
Severe Disabilities Program

Edmonton, Alberta
October 1988

Dear Colleague,

As a Special Education teacher I have been concerned with some medical issues regarding my students.

The administration of medications and specialized medical procedures which some of my severely handicapped students require are some of these concerns.

Many schoolboards have developed their own guidelines with regards to medical procedures. Some schoolboards have borrowed these procedures from American literature. Very little research on this matter has been done in Canada. I have chosen this topic for my thesis for my M. Ed. at the University of Alberta.

I would appreciate it if you would take a few minutes of your time to complete the enclosed questionnaire.

I will present the findings of this survey to the appropriate agencies so that necessary changes can be made in the future for the benefit of students and teachers.

This survey is completely confidential but if you wish to receive immediate feedback on the results, then please print your name and address on the last page and I will be glad to send you this information. Please return this information before _____, 1988.

Thank you for your cooperation.

Yours sincerely

L. Bakker

Edmonton, Alberta.

APPENDIX C

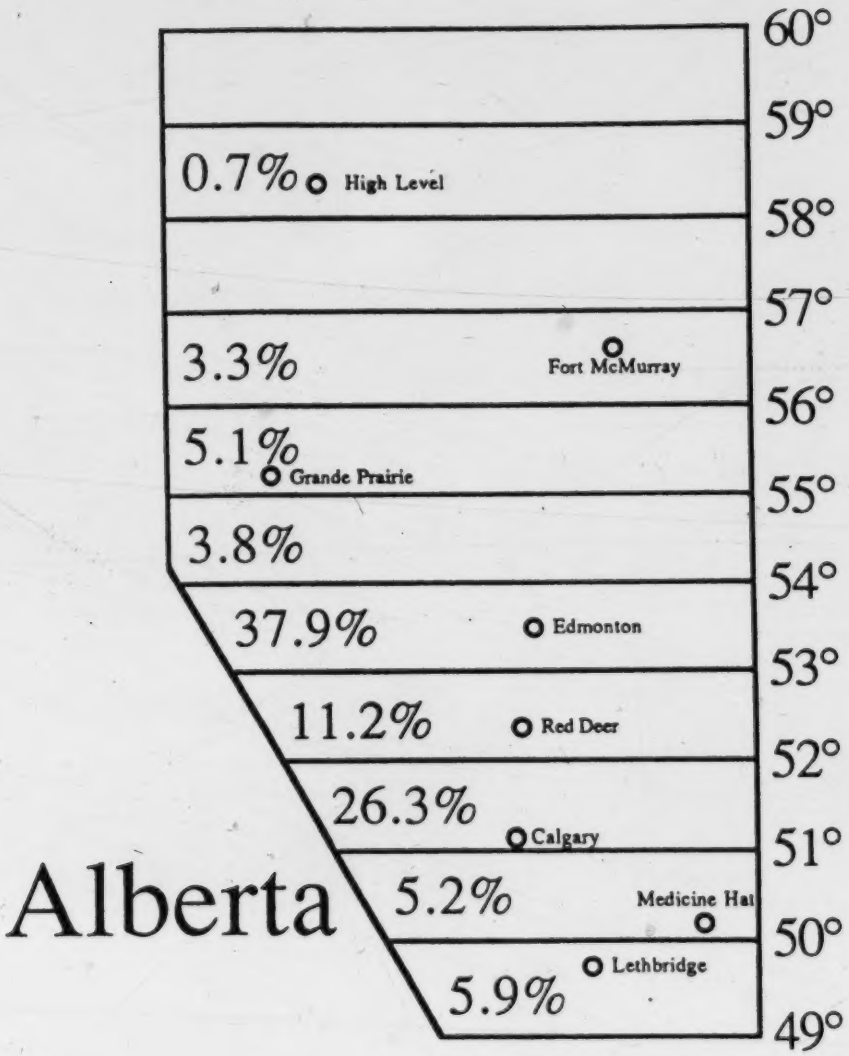
DEMOGRAPHIC INFORMATION

Page

1. Return Address Demographic Analysis 88

2. Geographic Distribution of Responses 89

Appendix C-1



Percentage of Sample by North/South Location

Return Address Demographic Analysis: 765 Responses had legible return addresses from 165 Alberta cities and towns.

GEOGRAPHIC DISTRIBUTION OF RESPONSES

Appendix C-2

	A	B	C	D	E	F	G	H
1	0	TOWN	No.	Percent	NEW	POPULATION	COORDINATES	
2	1	Acme	1	0.18%				
3	2	Airdrie	3	0.54%				
4	3	Alder Flats	2	0.36%				
5	4	Alix	2	0.36%				
6	5	Alliance	1	0.18%				
7	6	Amisk	1	0.18%				
8	7	Ardrossan	4	0.71%				
9	8	Arrowwood	2	0.36%				
10	9	Ashmont	1	0.18%				
11	10	Athabasca	1	0.18%				
12	11	Banff	1	0.18%				
13	12	Barons	1	0.18%				
14	13	Barrhead	3	0.54%				
15	14	Bassano	1	0.18%				
16	15	Beaumont	1	0.18%				
17	16	Beaverlodge	3	0.54%				
18	17	Beiseker	2	0.36%				
19	18	Big Valley	1	0.18%				
20	19	Blue Ridge	1	0.18%				
21	20	Bluffton	1	0.18%				
22	21	Bonanza	1	0.18%				
23	22	Bonnyville	2	0.36%				
24	23	Bowden	1	0.18%				
25	24	Bow Island	2	0.36%				
26	25	Breton	1	0.18%				
27	26	Brownfield	1	0.18%				
28	27	Buck Lake	1	0.18%				
29	28	Burdett	1	0.18%				
30	29	Calgary	87	15.54%				
31	30	Calmar	1	0.18%				
32	31	Camrose	2	0.36%				
33	32	Canmore	1	0.18%				
34	33	Cardston	2	0.36%				
35	34	Caroline	1	0.18%				
36	35	Castor	1	0.18%				
37	36	Cereal	2	0.36%				
38	37	Chard	1	0.18%				
39	38	Chauvin	1	0.18%				
40	39	Cherhill	1	0.18%				
41	40	Claresholm	3	0.54%				
42	41	Cleardale	1	0.18%				
43	42	Cluny	1	0.18%				
44	43	Clyde	3	0.54%				
45	44	Coaldale	2	0.36%				

GEOGRAPHIC DISTRIBUTION OF RESPONSES Appendix C-2

	A	B	C	D	E	F	G	H
46	45	Cochrane	1	0.18%				
47	46	Cold Lake	1	0.18%				
48	47	Concort	1	0.18%				
49	48	Condor	2	0.36%				
50	49	Conklin	1	0.18%				
51	50	Coronation	1	0.18%				
52	51	Courier	1	0.18%				
53	52	Darwell	2	0.36%				
54	53	Delburne	1	0.18%				
55	54	Delia	1	0.18%				
56	55	Devon	3	0.54%				
57	56	Didsbury	1	0.18%				
58	57	Dratton Valley	2	0.36%				
59	58	Drumheller	2	0.36%				
60	59	Duchess	2	0.36%				
61	60	Duffield	2	0.36%				
62	61	Eckville	3	0.54%				
63	62	Edmonton	81	14.46%				
64	63	Edson	4	0.71%				
65	64	Elk Point	1	0.18%				
66	65	Elmworth	1	0.18%				
67	66	Elnora	1	0.18%				
68	67	Enchant	1	0.18%				
69	68	Fairview	3	0.54%				
70	69	Falher	1	0.18%				
71	70	Foremost	3	0.54%				
72	71	Forestburg	1	0.18%				
73	72	Fort Kent	1	0.18%				
74	73	Fort McMurray	12	2.14%				
75	74	Fort Saskatchewan	4	0.71%				
76	75	Fort Vermilion	2	0.36%				
77	76	Gem	1	0.18%				
78	77	Gibbons	1	0.18%				
79	78	Glace?	1	0.18%				
80	79	Gleichen	1	0.18%				
81	80	Glendon	1	0.18%				
82	81	Glenwood	1	0.18%				
83	82	Grand Centre	1	0.18%				
84	83	Grande Cache	1	0.18%				
85	84	Grande Prairie	8	1.43%				
86	85	Hanna	4	0.71%				
87	86	Hardisty	2	0.36%				
88	87	Hay Lakes?	1	0.18%				
89	88	Heinsburg	1	0.18%				
90	89	High Level	1	0.18%				

GEOGRAPHIC DISTRIBUTION OF RESPONSES Appendix C-2

	A	B	C	D	E	F	G	H
91	90	High Prairie	3	0.54%				
92	91	High River	1	0.18%				
93	92	Hines Creek	1	0.18%				
94	93	Hinton	1	0.18%				
95	94	Hobbema	1	0.18%				
96	95	Hughenden	1	0.18%				
97	96	Innisfail	1	0.18%				
98	97	Jasper	1	0.18%				
99	98	Kathryn	1	0.18%				
100	99	Killam	2	0.36%				
101	100	Kitscoty	1	0.18%				
102	101	Lac La Biche	2	0.36%				
103	102	Lacombe	5	0.89%				
104	103	Leduc	7	1.25%				
105	104	Lethbridge	14	2.50%				
106	105	Linden	1	0.18%				
107	106	Mallaig	1	0.18%				
108	107	Marwayne	1	0.18%				
109	108	Mayerthorpe	3	0.54%				
110	109	McLennan	1	0.18%				
111	110	Medicine Hat	11	1.96%				
112	111	Medley	2	0.36%				
113	112	Millet	3	0.54%				
114	113	Morinville	1	0.18%				
115	114	Morrin	1	0.18%				
116	115	Mundare	2	0.36%				
117	116	Mynarski Park	1	0.18%				
118	117	Nacmine	1	0.18%				
119	118	Nampa	3	0.54%				
120	119	Nanton	2	0.36%				
121	120	Nobleford	1	0.18%				
122	121	Okotoks	2	0.36%				
123	122	Olds	2	0.36%				
124	123	Onoway	4	0.71%				
125	124	Oyen	1	0.18%				
126	125	Peace River	3	0.54%				
127	126	Picture Butte	2	0.36%				
128	127	Plamondon	1	0.18%				
129	128	Ponoka	6	1.07%				
130	129	Provost	2	0.36%				
131	130	Raymond	2	0.36%				
132	131	Red Deer	24	4.29%				
133	132	Rockyford	2	0.36%				
134	133	Rocky Mountain House	4	0.71%				
135	134	Rosaland?	1	0.18%				

GEOGRAPHIC DISTRIBUTION OF RESPONSES Appendix C-2

	A	B	C	D	E	F	G	H
136	135	Ryley	3	0.54%				
137	136	Schuler	1	0.18%				
138	137	Seba Beach	1	0.18%				
139	138	Sexsmith	2	0.36%				
140	139	Sherwood Park	9	1.61%				
141	140	Silver Valley	1	0.18%				
142	141	Slave Lake	3	0.54%				
143	142	Spirit River	2	0.36%				
144	143	Spruce Grove	2	0.36%				
145	144	Spruce View	2	0.36%				
146	145	St. Albert	13	2.32%				
147	146	Standard	1	0.18%				
148	147	Stavely	2	0.36%				
149	148	Stettler	4	0.71%				
150	149	Stirling	3	0.54%				
151	150	Stony Plain	7	1.25%				
152	151	St. Paul	1	0.18%				
153	152	Strathmore	1	0.18%				
154	153	Sunset House	1	0.18%				
155	154	Sylvan Lake	2	0.36%				
156	155	Taber	2	0.36%				
157	156	Three Hills	1	0.18%				
158	157	Thorhild	1	0.18%				
159	158	Tomahawk	1	0.18%				
160	159	Toussard	1	0.18%				
161	160	Trochu	1	0.18%				
162	161	Two Hills	2	0.36%				
163	162	Valhalla Centre	1	0.18%				
164	163	Valleyview	6	1.07%				
165	164	Vegreville	3	0.54%				
166	165	Vermilion	5	0.89%				
167	166	Vulcan	3	0.54%				
168	167	Wainwright	1	0.18%				
169	168	Wanham	1	0.18%				
170	169	Warburg	2	0.36%				
171	170	Warner	2	0.36%				
172	171	Wembley	1	0.18%				
173	172	Wetaskiwin	6	1.07%				
174	173	Whitecourt	3	0.54%				
175	174	Willingdon	1	0.18%				
176	175	Winfield	1	0.18%				
177								
178								
179								
180		TOTAL	560	100.00%				

Appendix C-2

Demographic Analysis

	A	B	C	D	E	F
185	184	Whitecourt	3	0.49%		
186	185	Willingdon	1	0.16%		
187						
188		Total	614	100.00%		

APPENDIX D

TEACHERS' COMMENTS ABOUT

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1. Drug Treatment Problems 95
2. Present Storage of Medication 97
3. Provision of Guidelines 99

APPENDIX D-1

TEACHERS' COMMENTS ABOUT DRUG TREATMENT PROBLEMS

asthma, diabetes

for lethargy, inability to concentrate, depression

black outs, for doziness

epileptic

aggressiveness, mild nervousness

inconsistency, lethargy

colds, allergies

epilepsy, asthma, diabetes

attention down, off task

irritability, down attention and coordination

irritability, shakiness, and coordination

behavior disorder, depression

numbness, slow

attention down, motivation down

unstable, weight gain

high dosages, behavior change, lethargy

mood swings, groggy, irritated, listless

upset stomach, sleep pattern disrupted

tired

water retention

for headaches, influenza, tonsillitis, asthma

seizure, behavior disorder, infections

crying excessively, agitated, look ill, dark circles

attention down

hyperactive

seizure, mood changes, lethargic

asthma, allergy, diabetes

emotional outbursts, aggression, nervousness

hypertension, depression, epilepsy, asthma

tired, lethargic

systic fibrosis, deficit syndrome

asthma

listlessness

ritalin, asthmatic, allergies, diabetes

APPENDIX D-2

TEACHERS' COMMENTS ABOUT STORAGE OF MEDICATION

teacher, student, staff room fridge

principal's office, staff room

locked in teacher's desk, nurse's cabinet

staff room fridge, child

classroom filing cabinet, nurse's room

teacher's desk, office

teacher's desk, office

office, staff room fridge

office, teacher

nurse's room, teacher's desk

office, staff room, classroom

teacher's purse, fridge

fridge, student's desk

child, fridge, office area, teacher's desk

office, locked cabinet

teacher's desk, principal's office, other classrooms

office, staffroom fridge, child

locker, student's desk, teacher's desk, staff room fridge

office, fridge

office, fridge

classroom, locker

secretary's desk, student

office, staff room

office, locker

teacher's desk, nurse's office

fridge, student

classroom, office

teacher's desk, kitchen fridge

staff fridge, secretary's desk, teacher's desk

child, staff room fridge, principal's office

office, teacher

locked filing cabinet, fridge

office, child

nurse's room, office

nurse's room, office

fridge, secretary's desk

locker, staff room

teacher's desk, office

student, office

fridge, student

APPENDIX D-3

TEACHERS' COMMENTS ABOUT PROVISION OF GUIDELINES

I feel the implications and guidelines should be addressed by the teacher's federation and not mandated by the department.

Room for individual needs.

All of the above should work together to draw up some guidelines; in no case should a teacher be forced to take procedures he/she feels uncomfortable with.

All should work together to form guidelines.

Teachers should not be expected to or allowed to administer drugs to students.

There should be agreement in guidelines between three groups above.

Teachers should be allowed to administer medications because of the ease of feasibility; however, it is important that release forms or waiver forms be filled out and signed prior to this.

Guidelines through consensus.

Each situation needs to be assessed separately. It seems to me there are problems inherent in generalizing about this.

Doctors who prescribe each individual medication.

Medical professional.

No medications should ever be given unless a doctor prescribed and the teacher is trained to administer as well as is willing to do so.

An agreement should be made between parties.